



CUTTING | MOUNTING | GRINDING | POLISHING | ETCHING | ANALYZING | HARDNESS TESTING

**CONSUMABLES 2023** 

valid as of 1st December 2022





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# QATM – Materialography & Hardness Testing

Customized solutions - with competence and passion

#### Machines and equipment for the materialographic laboratory

Whatever you need for quality testing and material analysis, QATM has it all. As a manufacturer of high-quality machines for materialography (metallography) and hardness testing, we offer the most comprehensive solutions for your needs. We not only supply a wide range of instruments but also accessories, consumables, complete laboratories and tailor-made special-purpose solutions.

#### We aim for the highest quality

Our innovative cut-off machines, mounting presses, grinders, polishers/electrolytic etchers, hardness testers and analysis systems provide maximum reliability and flexibility. The R&D departments for hardware and software work in close cooperation with our customers to ensure continuous optimization of our products. QATM is certified according to EN ISO 9001:2015 to make sure our internal procedures for conception, development, purchasing, sales and service are efficient and reflect our high standards.

Customers all over the world appreciate QATM's extensive sales and service network as well as the direct communication with our experts. The comprehensive expertise and creativity of our qualified staff are the basis for the consistent high quality of our solutions.

#### QATM offers:

- I MODERN PRODUCTION ENGINEERING AND HIGH VERTICAL INTEGRATION Optimum control of every single component of our machines guarantees reliable QATM "made in Germany" and "made in Austria" product quality.
- I APPLICATION CONSULTATION AND END-USER SEMINARS WITH INDIVIDUAL FOCUS Our application experts ascertain parameters and equipment configurations best suited for your sample preparation process.
- I IN-HOUSE HARDWARE AND SOFTWARE DEVELOPMENT QATM hosts the complete R&D process in-house. Tailor-made solutions to meet individual requirements are our strength.
- I CONSUMABLES FOR ALL STEPS OF THE MATERIALOGRAPHIC SAMPLE PREPARATION We offer a wide range of high-quality consumables for materialographic sample preparation and analysis. The consumables are tested in detail and chosen for optimal operation of QATM equipment by our application specialists at our central inhouse laboratory.



MAMMELZEN / GERMANY

- I Materialography, consumables, manufacture of lab furniture
- Development, manufacturing, assemblyTraining center



COLLING / AUSTRIA | Hardness testing, Analysis | Development and assembly | Training center

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# THE BEST CHOICE FOR YOUR APPLICATION

Cprep

With QPREP, QATM offers a wide range of high-quality consumables for metallographic sample preparation and analysis. All consumables are thoroughly tested and selected for perfect interaction with QATM machines.

# QATM CONTACT

QATM is a provider of integrated solutions. In addition to our comprehensive product range we offer full application support and technical service.



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# Expert Guide - Materialography/Metallography

A comprehensive guide is hereby provided to all who deal with materialographic sample preparation.

The systematic structure with extensive documented examples is suitable for both beginners and experienced users who want to learn or look up a particular preparation technique. You will find numerous tips and tricks in this book, which can also prove useful for experienced practitioners. This is especially true when working on complex or uncommon test objects.



#### **EXPERT GUIDE**

German Version Order No.: 95016622 English Version Order No.: 95016686



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#### Disclaimer

I We reserve the right to affect technical changes as well as price adjustments due to technical progress. All listings in our price list are based on our General Terms for Delivery and Payment.

- This price list covers only the current versions of products.
   The images may show accessories which may not be part of the standard delivery scope.
- I Our warranty period is product related.
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Tres



# Consumables for cutting









MATA

Anti corrosion coolant

MATAN

Kuhl-/ Korr.-Schutzmittei

11



4

a la manage

WIDT



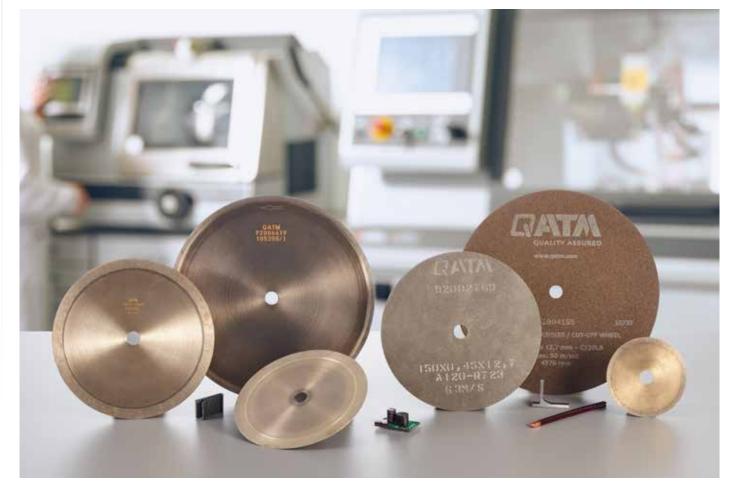
# Precision cutting

Precision cutting enables cutting directly next to significant analysis areas and for materials with particularly complex material properties. The material thickness of the precision cut-off wheel is significantly thinner than cut-off wheels with lager diameters. The bond of such cut-off wheels, which enclose the abrasive particles (aluminum oxide, diamond or CBN), can be resin, rubber, galvanic or bronze. QPREP precision cut-off wheels are the optimal solution exactly for such special cutting requirements.

#### PRODUCT ADVANTAGES

- I Minimal material loss due to thin cut-off wheel thickness
- I Cutting surface closer to the target surface / defect possible
- I Allows cutting of small, sensitive, and very brittle specimens

PRECISION CUT-OFF WHEELS				
Cut-off machine	Arbor size	Wheel diameter (max.)		
Brillant 220	12.7 mm	203 mm/8"		
Qcut 150 M	12.7 mm	203 mm/8"		
Qcut 150 A	12.7 mm	203 mm/8"		
Qcut 200 A	12.7 mm	203 mm/8"		





# *Oprep* Aluminum oxide precision cut-off wheels

For precision cutting of ferrous materials, QPREP Aluminum oxide precision cut-off wheels are the optimal choice. This cut-off wheel is available in two different grain types (fine and coarse).



92004159

92004998

92004155

5 Pcs.

5 Pcs.

5 Pcs.

#### **PRODUCT ADVANTAGES**

- I The dense structure of the disc allows a longer lifetime
- Less wear and less heat between specimen and cut-off wheel

#### RECOMMENDED APPLICATIONS

- I Suitable for a wide range of materials, especially various steel samples
- I Cutting of high alloy steel
- I Cutting of nitrided steel
- I Cutting of mounted samples possible

ltem No.	Unit	Description	n	
		ALUMIN	UM OXIDE I	PRECISION CUT-OFF WHEELS
		ø	Thickness	Arbor Size
		Fine-grain • for unive		on and for materials of higher hardness
92002643	5 Pcs.	100 mm	0.25 mm	12.7 mm
92002644	5 Pcs.	125 mm	0.45 mm	12.7 mm
92002769	5 Pcs.	150 mm	0.45 mm	12.7 mm
Coarse-grained • for universal application and for materials of lower hardness and mounted samples				
92002645	5 Pcs.	100 mm	0.4 mm	12.7 mm
92002646	5 Pcs.	125 mm	0.8 mm	12.7 mm
92002770	5 Pcs.	150 mm	0.6 mm	12.7 mm
92002647	5 Pcs.	200 mm	0.8 mm	12.7 mm

\* 1 reduction ring for each order

1 mm

1 mm

1.5 mm

12.7 mm

20 mm

12.7 mm

(incl. reduction ring 12.7 mm\*)

150 mm

150 mm

200 mm

		Reduction ring	Reduction ring	
01304330	1 Pc.	20 mm to 12.7 mm		



# *Oprep* Diamond precision cut-off wheels

For cutting hard materials, QPREP Diamond precision cut-off wheels are the optimal choice, as they cut materials such as ceramics without smearing. The bond is made of bronze. The diamonds can be "dressed" to take full advantage of the cutting performance of the diamond particles again after a longer period of use.



#### **PRODUCT ADVANTAGES**

- I Diamond as abrasive enables cutting of hardest materials
- I Separates hard material without smearing
- I The dressing functionality of our QATM cut-off machines ensures that the diamonds always maintain maximum cutting performance

#### **RECOMMENDED APPLICATIONS**

- I Cutting hard and brittle materials such as ceramics and glass
- I Cutting of mineral samples like rocks
  - I Cutting of specimens with brittle plasma coating

ltem No.	Unit	Description					
			DIAMOND PRECISION CUT-OFF WHEELS BOND: BRONZE				
		Ø	Thickness	Arbor Size			
		• for unive	ersal application	on			
92002397	1 Pc.	75 mm	0.3 mm	12.7 mm			
92002401	1 Pc.	100 mm	0.3 mm	12.7 mm			
92002405	1 Pc.	125 mm	0.5 mm	12.7 mm			
92002409	1 Pc.	150 mm	0.5 mm	12.7 mm			
		<ul> <li>for glass</li> </ul>	, ceramics, roo	cks			
		-					
92002398	1 Pc.	75 mm	0.3 mm	12.7 mm			
92002398 92002402	1 Pc. 1 Pc.	75 mm 100 mm	0.3 mm 0.3 mm				
				12.7 mm			
92002402	1 Pc.	100 mm	0.3 mm	12.7 mm 12.7 mm			
92002402 92002406	1 Pc. 1 Pc.	100 mm 125 mm	0.3 mm 0.5 mm	12.7 mm 12.7 mm 12.7 mm			
92002402 92002406 92002410	1 Pc. 1 Pc. 1 Pc.	100 mm 125 mm 150 mm	0.3 mm 0.5 mm 0.5 mm	12.7 mm 12.7 mm 12.7 mm 12.7 mm			
92002402 92002406 92002410	1 Pc. 1 Pc. 1 Pc.	100 mm 125 mm 150 mm	0.3 mm 0.5 mm 0.5 mm 1.0 mm	12.7 mm 12.7 mm 12.7 mm 12.7 mm			
92002402 92002406 92002410	1 Pc. 1 Pc. 1 Pc.	100 mm 125 mm 150 mm 200 mm	0.3 mm 0.5 mm 0.5 mm 1.0 mm	12.7 mm 12.7 mm 12.7 mm 12.7 mm			
92002402 92002406 92002410 95015121	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	100 mm 125 mm 150 mm 200 mm	0.3 mm 0.5 mm 0.5 mm 1.0 mm	12.7 mm 12.7 mm 12.7 mm 12.7 mm 12.7 mm			
92002402 92002406 92002410 95015121 92002400	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	100 mm 125 mm 150 mm 200 mm • for hard 75 mm	0.3 mm 0.5 mm 0.5 mm 1.0 mm metals 0.3 mm	12.7 mm 12.7 mm 12.7 mm 12.7 mm 12.7 mm			

for plastic and rubber on request

#### Notes



# **Qprep** CBN precision cut-off wheels

QPREP CBN precision cut-off wheels like the diamond precision cut-off wheels, are edged with a cubic boron nitride (CBN) abrasive in a bronze bond. The properties of CBN make it particularly suitable for composite and tough materials.



#### **PRODUCT ADVANTAGES**

- The best cutting performance when cutting soft and hard materials
- Separates hard material without smearing
- The dressing functionality of our QATM cut-off machines ensures that the CBN particles always maintain the highest cutting performance

#### **RECOMMENDED APPLICATIONS**

- Composites and materials with a combination of soft and hard materials
- Ductile materials Т
- Cutting hard ferrous materials

ltem No.	Unit	Description					
		CBN PRE BOND: B		T-OFF WHEELS			
		Ø	Thickness	Arbor Size			
		• for comp	osites and rig	gid materials			
92002442	1 Pc.	75 mm	0.9 mm	12.7 mm			
92002443	1 Pc.	100 mm	0.5 mm	12.7 mm			
92002444	1 Pc.	125 mm	0.5 mm	12.7 mm			
92002445	1 Pc.	150 mm	0.65 mm	12.7 mm			
92002446	1 Pc.	175 mm	0.9 mm	12.7 mm			
92006419	1 Pc.	200 mm	0.5 mm	12.7 mm			

other diameters on request

# **Qprep** Saw blade precision cut-off wheel

The QPREP Saw blade precision cut-off wheel is particularly suitable for cutting materials with a high tendency to smearing.



#### **PRODUCT ADVANTAGES**

- I The best performance when cutting non-metallic material
- Lower heat generation due to single engagement of the saw Т teeth during cutting
- I Since there is no binding of abrasives, the disc is odor and dust free

#### **RECOMMENDED APPLICATIONS**

- Separation of non-metallic materials E
- Separation of plastic materials 1
- Separation of polymers e.g., carbon fiber reinforced polymers

ltem No.	Unit	De	escripti	on		
		SA	AW B	LADE PR	ECISION	CUT-OFF WHEEL
			Ø	Thickness	Arbor Siz	e
		• 1	or plas	stics, non-f	errous me	etals
95009083	1 Pc.	150	) mm	1.4 mm	30 mm	(reduction ring 12.7 mm necessary)
01811035	1 Pc.	Re	ductio	on ring 12.7	mm to 30	mm

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# Cutting

The process of cutting, specifically wet abrasive cutting, is essential for materialographic sectioning of samples. In this process, cut-off wheels of different material thicknesses, abrasive particles and bonds are used on a corresponding wet abrasive cutting machine. These bond types can be synthetic resin, rubber, or metal. For the abrasives, aluminum oxide, silicon carbide, diamond or CBN is used. These abrasive particles are enclosed in a bond matrix.

#### **PRODUCT ADVANTAGES**

- I Low thermal influence on the specimen during the cutting process
- I Wet abrasive cutting achieves very fine surface finishes after cutting
- I Optimum cutting shortens the further preparation process

#### AS A RULE, THE FOLLOWING PRINCIPLE APPLIES:

- I For hard materials, a cut-off wheel with soft bond is recommended.
  - → This ensures fast breaking out of worn abrasive particles.
- I For medium-hard materials, a cut-off wheel with a medium-hard bond is recommended.
  - → This ensures even breaking out of worn abrasive particles.
- I For soft materials, a cut-off wheel with hard bond is recommended.
  - → This ensures slow breaking out of worn abrasive particles.

#### CUT-OFF WHEELS

Cut-off machine	Arbor size	Wheel diameter (max.)
Brillant 230	32 mm	254 mm/10" 305 mm/12"
Brillant 255	32 mm	356 mm/14" 406 mm/16"
Qcut 250 M (Brillant 200)	32 mm	254 mm/10"
Qcut 250 A (Brillant 240)	32 mm	254 mm/10"
Qcut 350 A (Brillant 250)	32 mm	305 mm/12" 356 mm/14"
Qcut 400 A (Brillant 265)	32 mm	356 mm/14" 406 mm/16"
Qcut 430 BOT (Brillant 3D)	32 mm	432 mm/17" 508 mm/20"
Qcut 500 A (Brillant 275)	32 mm	432 mm/17" 508 mm/20"
Qcut 600 A (Brillant 285)	32 mm	508 mm/20" 610 mm/24"
Qcut 800 A (Brillant 2000)	32 mm	610 mm/24" 813 mm/32"



# Premium cut-off wheels

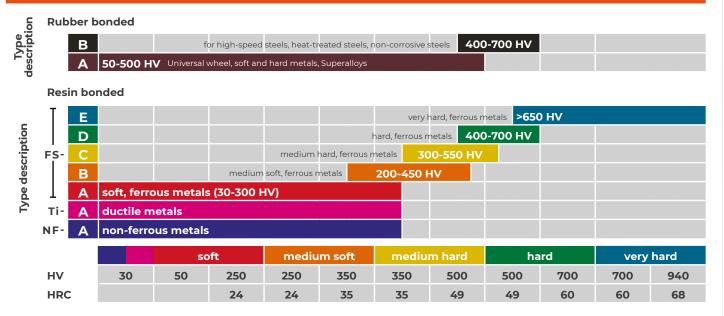
Significant properties for cut-off wheels are wear (i.e., abrasion resistance), long lifetime and cutting performance. Characteristics of the wheel composition are the abrasive used (aluminum oxide, silicon carbide, diamond, cubic boron nitride (CBN)) and the bond type (metal, resin or rubber). The goal of any cut is to separate the material with minimal deformation and temperature effect. For a clean cut, the abrasive particles and bond type of the cut-off wheel should be matched to the material being cut.

QPREP Premium cut-off wheels offer the optimal solution for a wide range of applications.

- Achieve a fine cutting surface
- I Wide range of cut-off wheels for cutting all materials
- I The best cutting function fitting to the material
- I Low deformation and temperature during the cutting process
- Very good cutting performance with long lifetime

The color coding of the premium cut-off wheels enables quick, visual assignment and identification of the several types:

#### CUT-OFF WHEEL SELECTION ACCORDING TO MATERIAL HARDNESS





# *Oprep* Premium Silicon Carbide cut-off wheels

Due to the lower hardness of silicon carbide particles compared to aluminum oxide particles, these premium cut-off wheels are the optimal choice for cutting soft as well as non-ferrous materials.



#### PRODUCT ADVANTAGES

- I Optimized cutting performance for non-ferrous metals and ductile metals
- I Long lifetime and low wear of the cut-off wheel

#### **RECOMMENDED APPLICATIONS**

- I QPREP Premium Silicon Carbide cut-off wheel **NF-A** are suitable for cutting soft and medium hard non-ferrous metals as well as hard non-metallic materials (glass, stone).
- I QPREP Premium Silicon Carbide cut-off wheel **Ti-A** for cutting non-ferrous metals, Ti alloys and refractory metals

ltem No.	Unit	Description PREMIUM SILICON CARBIDE CUT-OFF WHEELS BOND: RESIN Ø Thickness Arbor Size			
		Type NF-A, Purple • for non-ferrous metals (30-300 HV)			
95012531	10 Pcs.	250 mm 1.5 mm 32 mm			
95012538	10 Pcs.	300 mm 2.0 mm 32 mm			
95012545	10 Pcs.	350 mm 2.5 mm 32 mm			
95012552	10 Pcs.	400 mm 3.0 mm 32 mm			
95012566	5 Pcs.	500 mm 4.0 mm 32 mm			
95012573	5 Pcs.	600 mm 4.5 mm 32 mm			
Type Ti-A, Pink• for titanium and alloys, refractory metals (30-300 HV)					

		• for titan	· for titalium and anoys, refractory metals (50-500 HV)					
95012530	10 Pcs.	250 mm	1.5 mm	32 mm				
95012537	10 Pcs.	300 mm	2.0 mm	32 mm				
95012544	10 Pcs.	350 mm	2.5 mm	32 mm				

for cut-off wheels with Ø 230 mm and 400 mm for titanium and titanium alloys, see type F aluminum oxide cut-off wheels



# **Qprep** Premium Aluminum Oxide cut-off wheels

QPREP Premium Aluminum Oxide cut-off wheels cover a wide range of materials from 30 HV to >650 HV.



#### PRODUCT ADVANTAGES

- I Wide range of application for various materials with different hardness's
- Long lifetime as well as low wear of the cut-off wheel
- I Premium abrasive particles enable the finest cutting surfaces, which shortens the following grinding steps
- I The synthetic resin bond enables even breaking out of blunt abrasive particles during the cutting process

#### **RECOMMENDED APPLICATIONS**

- I Cutting of all materials
- I Cutting of polymers with the hard-bonded cut-off wheel FS-A
- I Cutting of very hard steels with the soft-bonded cut-off wheel **FS-E**

ltem No.	Unit	Description
		PREMIUM ALUMINUM OXIDE CUT-OFF WHEELS BOND: RESIN
		Ø Thickness Arbor Size
		Type FS-A, Red

#### • for soft steel (30-300 HV), non-ferrous metals, polymer

95012529	10 Pcs.	250 mm	1.5 mm	32 mm	
95012536	10 Pcs.	300 mm	2.0 mm	32 mm	
95012543	10 Pcs.	350 mm	2.5 mm	32 mm	
95012550	10 Pcs.	400 mm	3.0 mm	32 mm	
95012564	5 Pcs.	500 mm	4.0 mm	32 mm	
95012571	5 Pcs.	600 mm	4.5 mm	32 mm	

### Type FS-B, Orange

		<ul> <li>for med</li> </ul>	• for medium soft steel (200-450 HV)					
95012528	10 Pcs.	250 mm	1.5 mm	32 mm				
95012535	10 Pcs.	300 mm	2.0 mm	32 mm				
95012542	10 Pcs.	350 mm	2.5 mm	32 mm				
95012549	10 Pcs.	400 mm	3.0 mm	32 mm				
95012563	5 Pcs.	500 mm	4.0 mm	32 mm				
95012570	5 Pcs.	600 mm	4.5 mm	32 mm				

#### Type FS-C, Yellow • for medium hard steel (300-550 HV), case hardened, nitrided

		steels	steels				
95012527	7 10 Pcs.	250 mm	1.5 mm	32 mm			
95012534	4 10 Pcs.	300 mm	2.2 mm	32 mm			
95012541	10 Pcs.	350 mm	2.2 mm	32 mm			
95012548	3 10 Pcs.	400 mm	3.0 mm	32 mm			
95012562	2 5 Pcs.	500 mm	4.0 mm	32 mm			
95012569	) 5 Pcs.	600 mm	4.5 mm	32 mm			

Qprep



ltem No.	Unit	Descriptic	'n	
		Type FS-E • for hard		0-700 HV), annealed, carburised steels
95012526	10 Pcs.	250 mm	1.5 mm	32 mm
95012533	10 Pcs.	300 mm	2.0 mm	32 mm
95012540	10 Pcs.	350 mm	2.5 mm	32 mm
95012547	10 Pcs.	400 mm	3.0 mm	32 mm
95012561	5 Pcs.	500 mm	4.0 mm	32 mm
55012501				
95012568	5 Pcs.	600 mm	4.5 mm	32 mm
	5 Pcs.	Type FS-E	, Blue	32 mm s (>650 HV)
	5 Pcs. 10 Pcs.	Type FS-E	, Blue	
95012568		Type FS-E • for very	, Blue hard steel	s (>650 HV)
95012568	10 Pcs.	Type FS-E • for very 250 mm	<b>, Blue</b> hard steel 1.5 mm	<b>s (&gt;650 HV)</b> 32 mm
95012568 95012525 95012525	10 Pcs. 10 Pcs.	<b>Type FS-E</b> • for very 250 mm 300 mm	<b>, Blue</b> hard steel 1.5 mm 2.0 mm	<b>s (&gt;650 HV)</b> 32 mm 32 mm
95012568 95012525 95012525 95012532 95012539	10 Pcs. 10 Pcs. 10 Pcs.	<b>Type FS-E</b> • for very 250 mm 300 mm 350 mm	<b>, Blue</b> hard steel 1.5 mm 2.0 mm 2.5 mm	<b>s (&gt;650 HV)</b> 32 mm 32 mm 32 mm

ØThicknessArbor SizeØThicknessArbor SizeType A, Brown • universal wheel, soft and hard metals, superalloys (50-500 HV9200241310 Pcs.229 mm0.8 mm32 mm9200259910 Pcs.254 mm1.0 mm32 mm9200244110 Pcs.305 mm1.0 mm32 mm9200243610 Pcs.356 mm1.6 mm32 mm9200243910 Pcs.500 mm1.6 mm32 mm9200243910 Pcs.500 mm32 mm	ltem No.	Unit	Description					
Type A, Brown         Number Factor Condition           92002413         10 Pcs.         229 mm         0.8 mm         32 mm           92002599         10 Pcs.         254 mm         1.0 mm         32 mm           92002441         10 Pcs.         305 mm         1.0 mm         32 mm           92002443         10 Pcs.         305 mm         1.6 mm         32 mm           92002436         10 Pcs.         356 mm         1.6 mm         32 mm								
• universal wheel, soft and hard metals, superalloys (50-500 HV         92002413       10 Pcs.       229 mm       0.8 mm       32 mm         92002599       10 Pcs.       254 mm       1.0 mm       32 mm         92002441       10 Pcs.       305 mm       1.0 mm       32 mm         92002436       10 Pcs.       356 mm       1.6 mm       32 mm         92002439       10 Pcs.       400 mm       1.6 mm       32 mm			ø	Thickness	Arbor Size			
• universal wheel, soft and hard metals, superalloys (50-500 HV         92002413       10 Pcs.       229 mm       0.8 mm       32 mm         92002599       10 Pcs.       254 mm       1.0 mm       32 mm         92002441       10 Pcs.       305 mm       1.0 mm       32 mm         92002436       10 Pcs.       356 mm       1.6 mm       32 mm         92002439       10 Pcs.       400 mm       1.6 mm       32 mm								
92002599       10 Pcs.       254 mm       1.0 mm       32 mm         92002441       10 Pcs.       305 mm       1.0 mm       32 mm         92002436       10 Pcs.       356 mm       1.6 mm       32 mm         92002439       10 Pcs.       400 mm       1.6 mm       32 mm					t and hard metals, superalloys (50-500 HV)			
92002441       10 Pcs.       305 mm       1.0 mm       32 mm         92002436       10 Pcs.       356 mm       1.6 mm       32 mm         92002439       10 Pcs.       400 mm       1.6 mm       32 mm	92002413	10 Pcs.	229 mm	0.8 mm	32 mm			
92002436       10 Pcs.       356 mm       1.6 mm       32 mm         92002439       10 Pcs.       400 mm       1.6 mm       32 mm	92002599	10 Pcs.	254 mm	1.0 mm	32 mm			
92002439 10 Pcs. 400 mm 1.6 mm 32 mm	92002441	10 Pcs.	305 mm	1.0 mm	32 mm			
	92002436	10 Pcs.	356 mm	1.6 mm	32 mm			
92008537 10 Pcs. 500 mm 2.4 mm 32 mm	92002439	10 Pcs.	400 mm	1.6 mm	32 mm			
	92008537	10 Pcs.	500 mm	2.4 mm	32 mm			
92004007 10 Pcs. 600 mm 4.3 mm 40 mm	92004007	10 Pcs.	600 mm	4.3 mm	40 mm			

Typ B, Bla • for high- (400-700	speed steel	ls, heat-treated steels, non-corrosive steels	
229 mm	1.6 mm	32 mm	

92002414	10 Pcs.	229 mm	1.6 mm	32 mm
92002600	10 Pcs.	254 mm	1.6 mm	32 mm
92002434	10 Pcs.	305 mm	1.6 mm	32 mm
92002437	10 Pcs.	356 mm	2.4 mm	32 mm
92002440	10 Pcs.	400 mm	2.4 mm	32 mm
92008874	10 Pcs.	500 mm	3.0 mm	32 mm



# *Oprep* Premium Diamond cut-off wheels

QPREP Premium Diamond cut-off wheels are used for hard materials (ceramics, glass fiber reinforced plastics, minerals and rocks, glass or similar). There are two different bond variants to choose from: metallic, in which the diamonds are usually bound in a bronze bond, or the bond with synthetic resin.



#### **PRODUCT ADVANTAGES**

- I Two different bond types (bronze and resin) for a wide range of applications.
- The dressing functionality of our QATM cut-off machines ensures that the diamonds always maintain maximum cutting performance
- Long lifetime as well as low wear of the cut-off wheel I

#### **RECOMMENDED APPLICATIONS**

- I Cutting of ceramic materials as well as composites with bronzebonded diamond premium cut-off wheels
- Cutting of hard and brittle materials with resin-bonded diamond Ľ. cutting discs
- I Cutting of brittle coating surfaces

ltem No.	Unit	Descriptic	on	
			JM DIAMON BRONZE	D CUT-OFF WHEELS
		Ø	Thickness	Arbor Size
		<ul> <li>for cera</li> </ul>	mic materials	

92002452	1 Dc	250 mm	1.2 mm	32 mm
J2002 <del>4</del> J2	TFC.	250 11111	1.2 111111	JZ IIIIII
92002453	1 Pc.	300 mm	1.6 mm	32 mm
95003433	1 Pc.	350 mm	1.6 mm	32 mm
92008751	1 Pc.	400 mm	2.4 mm	32 mm

#### for composite materials (hard/soft combinations)

95002102	1 Pc.	250 mm	1.3 mm	32 mm
92004719	1 Pc.	300 mm	1.3 mm	32 mm
92008619	1 Pc.	350 mm	1.4 mm	32 mm
95006793	1 Pc.	400 mm	1.3 mm	32 mm

other diameters on request

#### PREMIUM DIAMOND CUT-OFF WHEELS **BOND: RESIN** ø **Arbor Size**

Thickness

#### · for hard metals, generally for materials of high hardness

				-	-	
92002451	1 Pc.	250 mm	1.2 mm	32 mm		
92002454	1 Pc.	300 mm	1.6 mm	32 mm		
95003049	1 Pc.	350 mm	1.6 mm	32 mm		
95010131	1 Pc.	400 mm	1.6 mm	32 mm		
		othor diamot	ors on request			

other diameters on request



# *Oprep* Premium CBN cut-off wheels

QPREP Premium CBN cut-off wheels made of cubic boron nitride (CBN) provide a fine cutting surface for nickel and cobaltbased alloys. The high hardness as well as the high ductility of the CBN particles improve the cutting ability of the cut-off wheel with significantly less wear. The CBN abrasives in these discs maintain cutting performance over a longer period, which improves the cutting ability of the cut-off wheels.



92004473

1 Pc.

#### **PRODUCT ADVANTAGES**

- I The good thermal conductivity of CBN abrasives can dissipate heat generated during cutting much more effectively
- Long lifetime as well as low wear of the cut-off wheel
- I The dressing functionality of our QATM cut-off machines ensures that the CBN particles always maintain the highest cutting performance

32 mm

#### **RECOMMENDED APPLICATIONS**

- I Cutting nickel and cobalt based alloys
- I For cutting very hard steels

ltem No.	Unit	Description			
		PREMIUM BOND: BR		OFF WHEELS	
		Ø	Thickness	Arbor Size	
		• for Nickel	and Cobald	based alloys	
92002456	1 Pc.	• for Nickel	and Cobald 1.6 mm	<b>based alloys</b> 32 mm	
92002456 92002457	1 Pc. 1 Pc.				

1.6 mm

400 mm

#### Notes



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# *Oprep* Aluminum Oxide cut-off wheels

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QPREP Aluminum Oxide cut-off wheels are to be used for varied materials depending on the type.

#### PRODUCT ADVANTAGES

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- I Long lifetime as well as low wear of the cut-off wheel
- I The synthetic resin bond enables even breaking out of blunt abrasive particles during the cutting process

#### **RECOMMENDED APPLICATIONS**

- I Type-I for cutting mild steel and cast materials
  - Type-D for cutting medium-hard materials and case-hardened steel
- I Type-F with a diameter of 235 mm and 400 mm are a supplement to the Premium Ti-A cut-off wheels

ltem No.	Unit	Descriptio	n	
		ALUMIN BOND: F		E CUT-OFF WHEELS
		Ø	Thickness	Arbor Size
		Type C ∙ universa	l wheel for	materials of high to very high hardness
92001550	10 Pcs.	235 mm	1.5 mm	32 mm
92001554	10 Pcs.	250 mm	1.5 mm	32 mm
92001558	10 Pcs.	300 mm	2 mm	32 mm
92001669	10 Pcs.	350 mm	2 mm	32 mm
92001783	10 Pcs.	400 mm	3 mm	32 mm
02001551	10 Dec	steels		medium hard materials, case-hardened
92001551	10 Pcs.	235 mm	1.5 mm	32 mm
92001555	10 Pcs.	250 mm	1.5 mm	32 mm
92001559 92001670	10 Pcs. 10 Pcs.	300 mm 350 mm	2 mm 2 mm	32 mm 32 mm
92001784	10 Pcs.	400 mm	3 mm	32 mm
		Type F • for titani	ium and tita	anium alloys
92002417	10 Pcs.	230 mm	1.5 mm	32 mm
92002428	10 Pcs.	400 mm	3 mm	32 mm
				50 mm, 300 mm and 350 mm for titanium and -A, Pink Premium Silicon Carbide cut-off wheels
		Type I • for cons	truction ste	els and cast material
			1.0	32 mm
92006066	10 Pcs.	250 mm	1.6 mm	5211111
92006066 92005863	10 Pcs. 10 Pcs.	250 mm 300 mm	1.6 mm 2 mm	32 mm



# **Qprep** Coolant and anti-corrosion agent

Optimum cooling is essential during cutting. Excessive heat generation during the cutting process damages the specimen as well as the cutting wheel. QPREP coolant and anti-corrosion agent help to dissipate the heat and remove chips at the cutting point. A corrosion inhibitor must be added to the coolant, otherwise there is a risk of oxidation on the cut-off surface of the specimen as well as on machine components.



#### PRODUCT ADVANTAGES

- I QPREP coolant and anti-corrosion agent are suitable for all types of cut-off machines
- I QPREP ATM CoolCut is known for its environmentally and userfriendly handling
- I QPREP coolant and anti-corrosion agent minimize the risk of thermal damage and corrosion during the cutting process

#### **RECOMMENDED APPLICATIONS**

- For separating all and especially corrosion-sensitive materials
- I When cutting coated samples that have been coated in a salt bath, the QPREP Defoamer should be used
- I For cutting polymers and composites, the use of the QPREP coolant and anti-corrosion agent for plastics and composites is recommended
- I QPREP ATM-CoolAdd CU is an additive to the cooling lubricant for specific requirements when cutting specific materials

ltem No.	Unit	Description
		ATM-COOLCUT, ENVIRONMENT- AND USER-FRIENDLY
		Mixing ratio 1:25 (4%) – 1:12.5 (8%) / refractometer: 2.0%/°Bx
RECOMME	NDATION	<ul> <li>for steel, cast iron, light and non-ferrous metal, glass and ceramics, composites</li> <li>free of oil, boron, nitride and formaldehyde</li> <li>optimized anti-corrosion protection and cutting properties</li> </ul>
95004145	11	ATM-CoolCut, concentrate
95004146	51	ATM-CoolCut, concentrate
95004147	10 I	ATM-CoolCut, concentrate
		ANTI CORROSION COOLANT FOR POLYMERS AND COMPOSITES Mixing ratio: 1:66 (1.5%) - 1:33 (3%) / refractometer: 2.4%/°Bx • optimized for polymers and composites • free of nitride and oil • also suitable for steels, non-ferrous metals, ceramics and glasses
95007864	11	Concentrate
		ANTI CORROSION COOLANT, STANDARD Mixing ratio 1:35 / refractometer: 1.4%/°Bx • for steel, cast iron, non-ferrous metal
95014280	11	Concentrate
95014281	51	Concentrate
95014282	10 I	Concentrate



Item No.	Unit	Description
		COOLING AGENT ADDITIVES
		ATM-CoolAdd CU
95008731	11	ATM-CoolAdd CU, additive for cutting of non-ferrous materials like Cu and its alloys. Mixing concentration in aqueous coolant approx. 0.05 - 0.2%
		Defoaming agent
95014584	200 ml	Defoaming agent, additive for water-based coolants Mixing concentration in aqueous coolant approx. 0.005 - 0.05%
95014583	11	Defoaming agent, additive for water-based coolants Mixing concentration in aqueous coolant approx. 0.005 - 0.05%
		ATM-PreClean
92006502	1 kg	ATM-PreClean, cleaning concentrate/system cleaner for circulating cooling units and cutting machines

#### Notes

QATM price list 2023/E · valid as of December 1, 2022 · all prices FCA Mammelzen · General Terms and Conditions: www.qatm.com/terms ATM Qness GmbH · Emil-Reinert-Str. 2 · 57636 Mammelzen · Germany Phone: +49 2681 9539-0 · Fax: +49 2681 9539-20 · E-Mail: info@qatm.com · www.qatm.com



# *Oprep* Accessories & Tools

For inspection as well as effective working with QPREP cut-off wheels and QPREP cooling and anti-corrosion agents, QATM offers accessories & tools.



Item No.	Unit	Description
		ACCESSORIES FOR MAINTENANCE AND CARE OF COOLANTS
		Maintenance and testing set
95007866	1 Set	Maintenance and testing set for anti-corrosion coolant (case with handheld refractometer, plastic cup for extraction of sample, test strips, thermometer)
		Accessories for maintenance and testing set
92005616	100 Pcs.	pH test strips
92005613	100 Pcs.	Nitrate test strips
92005614	100 Pcs.	Nitrite test strips

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-	
- 24	Tanan and tan

			ACCESSORIES FOR MAINTENANCE AND CARE OF CUT-OFF MACHINES
			Corrosion protection- and care spray
	95016408	400 ml	Corrosion protection- and care spray, fully synthetical, silicon-free corrosion protection oil, for metal surfaces (e.g. clamping vices)
			Anti-fog spray
	95008900	100 ml	Anti-fog spray (prevents steaming up the viewing window by splash water)

		ACCESSORIES FOR CUT-OFF WHEELS
		Dressing stone
92002460	1 Pc.	Dressing stone for diamond cut-off wheels, CBN cut-off wheels and cup wheels

# *Rprep* Filter systems

During cutting, various residual materials are produced from the specimen (chips) and from the cut-off wheel (wear/tear). To prevent these residual materials from entering the cooling water / waste water system or the pump mechanism, the use of filter systems is required. A suitable filter system with the correct mesh size, filter material and dimension has a significant influence on the cleanliness of the coolant.



#### **PRODUCT ADVANTAGES**

- Various QPREP filter systems for different cut-off machines, L. from precision machines to floor standing machines.
- QPREP filter systems protect the cutting machine and thus increase its lifetime.
- The different mesh sizes of the filters offer an applicationoriented selection of the appropriate filter system for the corresponding recirculating cooling unit.

#### **RECOMMENDED APPLICATIONS**

The use of a filter system keeps the coolant significantly longer Т clean and prevents damage to the pump and machine.

CUTTING

**N**prep



95017309

5 Pcs.

ltem No.	Unit	Description					
		FILTER INSERTS	FILTER INSERTS				
			Dimensions	Mesh size			
		for Brillant 255 / Qcut 4 Qcut 500 A (Brillant 27	400 A (Brillant 265) / Brill 5) / Brillant 280	lant 270 /			
95017301	5 Pcs.	Filter cloth and fleece	490 x 290 x 190 mm	60 µm			
95017302	5 Pcs.	Filter cloth and fleece	490 x 290 x 190 mm	100 µm			
95017303	5 Pcs.	Filter cloth and fleece	490 x 290 x 190 mm	800 µm			
		for recirculation coolin (until year of construct					
95017304	5 Pcs.			60 µm			
95017304 95017305	5 Pcs. 5 Pcs.	(until year of construct	ion 2012)	60 μm 100 μm			
	0.000	<b>(until year of construct</b> Filter cloth and fleece	290 x 150 x 190 mm				
95017305	5 Pcs.	(until year of construct Filter cloth and fleece Filter cloth and fleece	<b>ion 2012)</b> 290 x 150 x 190 mm 290 x 150 x 190 mm	100 µm			
95017305	5 Pcs.	(until year of construct Filter cloth and fleece Filter cloth and fleece	tion 2012) 290 x 150 x 190 mm 290 x 150 x 190 mm 290 x 150 x 190 mm g system 45 Ltr.	100 µm			
95017305	5 Pcs.	(until year of construct Filter cloth and fleece Filter cloth and fleece Filter cloth and fleece for recirculation coolin	tion 2012) 290 x 150 x 190 mm 290 x 150 x 190 mm 290 x 150 x 190 mm g system 45 Ltr.	100 µm			

		FILTER FLEECE FOR BELT FILTER SYSTEMS	
			Length x Width
		for belt filter system BFA 285	
92008780	1 Pc.	Filter fleece roll, coarse, 150 µm	100 m x 710 mm

Filter cloth and fleece 250 x 200 x 155 mm 800 µm

		for belt filter system BFA 100/130
95001696	1 Pc.	Filter fleece roll, coarse, 150 µm 🛛 100 m x 420 mm
		other sizes on request

		FILTER FLEECE MAT FOR RECIRCULATION COOLING SYSTEMS		
			Length x Width	
		for Qcut 800 A (Brillant 2000)		
95016233	5 Pcs.	Filter fleece mat	940 x 720 mm	
		for Qcut 600 A (Brillant 285)		
95016231	5 Pcs.	Filter fleece mat	724 x 720 mm	
		for recirculation cooling system 15 Ltr. (Qcut 150 A/M)		
95017314	5 Pcs.	Filter fleece mat	235 x 148 mm	

Qprep







tmittel

schwarz

g powder black

# Consumables for mounting

MTAN

KEM 15 plus Pulver

CEM 15 plus

MTAN

GATM

EM IS plus

EM 15 ph

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KEM 50 UV

KEM SO UV

ATA

Warmeinbettmittel EPO schwarz

Hot mounting powder

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# Hot mounting

Hot mounting is a process that involves compressing materialographic specimens in ground resin granules in a plane-parallel manner with the aid of a closed cylinder.

The hot mounting technique ensures high edge retention, provides an optimal edge protection. Due to the gap-free adhesion to the specimen surface it is particularly suitable for wet chemical etching after Polishing. With the Qpress 50 hot mounting press, even higher specimen throughputs can be efficiently hot mounted due to its modular design. For heat- or pressure-sensitive specimens, we recommend mounting using QPREP cold mounting media.

QPREP hot mounting materials are specifically chosen plastic granules consists of various base polymers.

#### BENEFITS

- I Good edge retention
- I High degree of hardness of the mounting material
- I High plane parallelism
- I Easy sample marking by engraving or labelling

#### PROPERTIES OF HOT MOUNTING MATERIALS

Mounting material	Recommended Application	Basis/ Filler	Hardness (Shore D)	Removal rate (grindability)
EPO BLACK	High edge retention, edge examination, medium-hard to hard materials	Epoxy resin/ mineral and glass fibre	93	very low
EPO-MAX	High edge retention, edge examination, medium-hard to hard materials, easy cleaning of mould and ram due to low adhesion	Epoxy resin/mineral	93	very low
DUROPLAST BLACK	Conductive, SEM-analysis, electrolytic polishing	Phenolic resin/ graphite	89	medium
THERMOPLAST	Transparent mounting, targeted preparation, good for padding, marking	Acrylic resin	86	medium
BAKELIT BLACK	Routine work, soft to medium-hard materials, good for padding	Phenolic resin/ wood flour and graphite	90	medium
BAKELIT GREEN	Routine work, soft to medium-hard materials, good for padding	Phenolic resin/ wood flour and magnesium oxide	90	medium
BAKELIT RED	Routine work, soft to medium-hard materials, good for padding	Phenolic resin/ wood flour and boric acid	90	medium

#### Notes



# **Gprep** EPO BLACK

QPREP EPO BLACK is a fine granular, epoxy resin based thermosetting hot mounting material.



#### PRODUCT ADVANTAGES

- Very low gap formation
- I High edge retention and plane parallelism
- I Contains a high filler content of glass and minerals for good machinability
- Hardness (Shore D): 93
- Removal rate: Very low

#### **RECOMMENDED APPLICATIONS**

- Routine applications
- I Edge examination
- I Mounting of medium-hard to hard materials



	ltem No.	Unit	Description
			HOT MOUNTING MATERIAL EPO BLACK
-			
	95011990	1 kg	EPO BLACK
	95011991	5 kg	EPO BLACK
	95011992	10 kg	EPO BLACK

### Represe EPO-MAX

QPREP EPO MAX is an epoxy resin compound for hot mounting with high edge retention. It is optimized for low adhesion on mould and ram surfaces.

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#### PRODUCT ADVANTAGES

- I Very low gap formation
  - High edge retention and plane-parallelism
- I Easy Cleaning of mould and ram due to low adhesion
- Contains mineral filler
- Hardness (Shore D): 93
- Removal rate: Very low

#### **RECOMMENDED APPLICATIONS**

- I Edge examinations
- I Mounting of medium-hard to hard materials

Item No.	Unit	Description
		HOT MOUNTING MATERIAL EPO-MAX
95013811	1 kg	EPO-MAX
95013812	5 kg	EPO-MAX
95013813	10 kg	EPO-MAX



# **Oprep** DUROPLAST BLACK

QPREP DUROPLAST BLACK is an electrically conductive hot mounting material based on a phenolic resin compound. It is suitable for SEM examinations and electrolytic polishing.



#### **PRODUCT ADVANTAGES**

- Electroconductive Ľ
- Contains graphite particles
- Hardness (Shore D): 89 L
- Removal rate: Medium Ľ

#### **RECOMMENDED APPLICATIONS**

- Scanning electron microscopy г
- Electrolytic polishing Ľ

ltem No.	Unit	Description
		HOT MOUNTING MATERIAL DUROPLAST BLACK
95011993	1 kg	DUROPLAST BLACK
95011994	5 kg	DUROPLAST BLACK
95011995	10 kg	DUROPLAST BLACK

### **Oprep** THERMOPLAST

QPREP THERMOPLAST is a highly transparent hot mounting material consisting of acrylic resin.



#### **PRODUCT ADVANTAGES**

- High transparency E. Suitable for filling up and marking I
- Hardness (Shore D): 86 Т
- Removal rate: Medium Т

#### **RECOMMENDED APPLICATIONS**

- Transparent mounting Т
- Ideal for target preparations and sensitive specimen Т
- Mounting of complex geometries and bulk solid materials L

ltem No.	Unit	Description
		HOT MOUNTING MATERIAL THERMOPLAST
95011996	1 kg	THERMOPLAST
95011997	5 kg	THERMOPLAST
95011998	10 kg	THERMOPLAST



# **Oprep** BAKELIT BLACK

QPREP BAKELIT BLACK is an all-purpose hot mounting material based on a phenolic resin compound. It is suitable for general materialographic applications.



#### PRODUCT ADVANTAGES

- I Very convenient for filling in combination with other hot mounting material
- I Contains wood flour and graphite
- Hardness (Shore D): 90
- Removal rate: Medium

#### **RECOMMENDED APPLICATIONS**

- Routine mountings
- I Core structure examinations
- I Mounting of soft to medium-hard materials

ltem No.	Unit	Description
		HOT MOUNTING MATERIAL BAKELIT BLACK
95011981	1 kg	BAKELIT BLACK
95011982	5 kg	BAKELIT BLACK
95011983	10 kg	BAKELIT BLACK

### *Oprep* BAKELIT GREEN

QPREP BAKELIT GREEN is an all-purpose hot mounting material based on a phenolic resin compound. It is suitable for general materialographic applications.



#### PRODUCT ADVANTAGES

- I Very convenient for filling in combination with other hot mounting material
- Contains wood flour and magnesium oxide
- I Hardness (Shore D): 90
- Removal rate: Medium

#### **RECOMMENDED APPLICATIONS**

- Routine mountings
- Core structure examinations
- I Mounting of soft to medium-hard materials

		HOT MOUNTING MATERIAL BAKELIT GREEN
95011987	1 kg	BAKELIT GREEN
95011988	5 kg	BAKELIT GREEN
95011989	10 kg	BAKELIT GREEN



# *Oprep* BAKELIT RED

QPREP BAKELIT BLACK is an all-purpose hot mounting material based on a phenolic resin compound. It is suitable for general materialographic applications.



#### **PRODUCT ADVANTAGES**

- I Very convenient for filling in combination with other hot mounting material
- I Contains wood flour and boric acid
- I Hardness (Shore D): 90
- I Removal rate: Medium

#### **RECOMMENDED APPLICATIONS**

- I Routine mountings
- Core structure examinations
- I Mounting of soft to medium-hard materials

ltem No.	Unit	Description
		HOT MOUNTING MATERIAL BAKELIT RED
95011984	1 kg	BAKELIT RED
95011985	5 kg	BAKELIT RED
95011986	10 kg	BAKELIT RED

#### Notes



## **Qprep** Accessories & tools for hot mounting

Depending on the shape of the specimen to be mounted, the chosen hot mounting material, and the objectives of the materialographic preparation QPREP's wide range of accessories and tools ensures the best possible analysis results.



- I Anti-stick silicone paste and spray to protect the mould and ram surfaces
- I Various clamps for aligning specimens with complex geometries
- I Funnel for clean and loss-free filling of the mounting resin into the press mould.

ltem No.	Unit	Description
		ACCESSORIES FOR HOT MOUNTING
92002660	90 ml	Silicon paste, anti-stick agent
92002661	200 ml	Silicon spray, anti-stick agent
92004441	1 Pc.	Brass brush for cleaning of hot mounting press
92002658	1 Pc.	Funnel for hot mounting material
92002715	1 Pc.	Square bottle with screw-top for approx. 1 ltr. mounting material
92002657	100 Pcs.	Angle adapter for angled polishing, 10°
92001716	10 Pcs.	Dosing spoon for hot and cold mounting material, 13 ml



#### CLIP FOR ALIGNING THIN SAMPLES IN MOULD

_			
	92002662	100 Pcs.	Steel
	92002663	100 Pcs.	Plastic, transparent
	92002707	100 Pcs.	Plastic, black
	92002708	100 Pcs.	Plastic, red
	92002709	100 Pcs.	Plastic, grey



# Cold mounting

The term cold mounting covers all mounting methods that do not require the use of a hot mounting press. To create a optimal cold-embedded specimen, consider the following:

- I The specimen must not be affected or corroded by the resin selected for cold mounting.
- I The specimen must be able to withstand the peak temperature of the mounting system.
- I To prevent gap formation, the specimen surface must be free of dust and grease before mounting, so that the specimen can be well wetted with the mounting medium.

QPREP cold mounting resins are available on methyl methacrylate or MMA-free and epoxy based. Acrylate or MMA-free based cold mounting resins are characterized by good removal rate, short curing times and good chemical resistance. Epoxy resins are used for mounting of porous and temperature sensitive materials. Furthermore, they are used when the lowest possible gap formation is intended.

#### PROPERTIES OF COLD MOUNTING MATERIALS

Mounting Material	Recommended Application	Basis	Curing time	Curing temperature	Hardness (Shore D)	Removal rate (grindability)
KEM 15 plus	With high edge retention, edge examination, medium-hard to hard materials	Methyl methacrylate	approx. 25 min.	approx. 85-100 °C	85	very low
KEM 20	Transparent mounting (pressure vessel), targeted preparation	Methyl methacrylate	approx. 15 min.	approx. 100-120 °C	84	medium
KEM 30	Semi-transparent mounting (pressure vessel), routine work, soft to medium-hard materials	Methyl methacrylate	approx. 5 min.	approx. 95-110 °C	85	medium
KEM 35	Minimized gap formation, edge examination, medium- hard to hard materials	Methyl methacrylate	approx. 12 min.	approx. 85-100 °C	87	very low
TECHNOVIT 5000	SEM (Scanning electron microscopy), electrolytic polishing	Modified methyl methacrylate	approx. 10 min.	approx. 85-110 °C	91	very low
KEM 60	Universal usage	Tetrahydrofurfuryl-2- methacrylate	approx. 10 min.	approx. 95-110 °C	85	low
KEM 90	Mounting using vacuum, sensitive and brittle materials	Epoxy resin	approx. 16-24 h	Room temperature up to approx. 60 °C	79	high
KEM 92	Vacuum impregnation, brittle and heat sensitive materials, porous materials	Epoxy resin	approx. 12-13 h	Room temperature up to approx. 35 °C	81	medium
KEM 50 UV	For standard samples, soft to medium hard materials, targeted preparation	Modified methacrylate	approx. 60 s	approx. 90 °C	83	high

**Oprep** 



## **Qprep** KEM 15 PLUS

QPREP KEM 15 PLUS is a universally applicable two-component cold mounting material based on a modified polyester resin. Due to its very low shrinkage, it is particularly suitable for boundary layer investigations.



#### PRODUCT ADVANTAGES

- Very low shrinkage
- I High edge retention
- I Good chemical resistance
- I Good mechanical machinability
- Easy dosage with enclosed measuring spoon
- Curing temperature: approx. 85-100 °C
- Curing time: approx. 25 min
- Hardness (Shore D): 85
- Removal rate: Very low

#### **RECOMMENDED APPLICATIONS**

- I Edge examination
- I Mounting of medium-hard to hard materials
- I Curing by means of overpressure with pressure equipment possible, to minimize porosity and increase edge retention

COLD MOUNTING MATERIAL KEM 15 PLUS Basis: Methyl methacrylate • blue, opaque • 2-component system: powder + liquid (1.5:1 [Vol%])		ltem No.	Unit	Description
<ul> <li>blue, opaque</li> <li>2-component system: powder + liquid (1.5:1 [Vol%])</li> </ul>				COLD MOUNTING MATERIAL KEM 15 PLUS
• 2-component system: powder + liquid (1.5:1 [Vol%])				Basis: Methyl methacrylate
95012019 1 Set 1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons	-	95012019	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons
95011628 1 kg Powder		95011628	1 kg	Powder
95011630 10 kg Powder		95011630	10 kg	Powder
95011629 500 ml Liquid		95011629	500 ml	Liquid
95011631 5 I Liquid		95011631	51	Liquid

### Represe KEM 20

QPREP KEM 20 is a universally applicable two-component cold mounting material based on a methyl methacrylate resin compound. Transparent embeddings can be realized when curing under overpressure.



#### PRODUCT ADVANTAGES

- I Feasibility of transparent embeddings by means of pressure equipment
- I Good chemical resistance
- I Good mechanical machinability
- I Easy dosage with enclosed measuring spoon
- Curing temperature: approx. 100-120°C
- I Curing time: approx. 15 min
- I Hardness (Shore D): 84
- I Removal rate: Medium

#### **RECOMMENDED APPLICATIONS**

- I Target preparations
- I Mounting of soft to medium-hard materials



	ltem No.	Unit	Description
			COLD MOUNTING MATERIAL KEM 20
			Basis: Methyl methacrylate
			<ul> <li>feasibility of transparent embeddings by means of pressure unit</li> <li>2-component system: powder + liquid (2:1 [Vol%])</li> </ul>
	95013990	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons
m	95013939	1 kg	Powder
3	95013940	5 kg	Powder
	95013941	10 kg	Powder
2	95013942	500 ml	Liquid
	95013943	11	Liquid

### **Gprep** KEM 30

QPREP KEM 30 is a universal two-component cold mounting resin based on a methyl methacrylate resin compound. It is a fastcuring resin, which is particularly suitable for high sample throughput.



#### PRODUCT ADVANTAGES

- I Semi-transparent
- I Good chemical resistance
- I Good mechanical machinability
- I Easy dosage with enclosed measuring spoon
- Curing temperature: approx. 95-110°C
- I Curing time: approx. 5 min
- I Hardness (Shore D): 85
- Removal rate: Medium

#### **RECOMMENDED APPLICATIONS**

- I Routine testing with high sample throughput
- I Mounting of soft to medium-hard materials
- I Curing by means of overpressure with pressure equipment possible, to minimize porosity

ltem No.	Unit	Description
		COLD MOUNTING MATERIAL KEM 30
		Basis: Methyl methacrylate
		<ul> <li>green, semi-transparent</li> <li>2-component system: powder + liquid (2:1 [Vol%])</li> </ul>
95012021	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons
92004080	1 kg	Powder
92004082	5 kg	Powder
92004081	500 ml	Liquid
92004083	11	Liquid
92002540	2.5	Liquid



Qprep



### **Qprep** KEM 35

QPREP KEM 35 is a universally applicable two-component cold mounting material based on a methyl methacrylate resin compound. Due to its very low shrinkage and hardness, it is particularly suitable for edge examination on materials with higher hardness.



#### PRODUCT ADVANTAGES

- I Very low shrinkage
- I High edge retention
- I Very good mechanical machinability
- I Easy dosage with enclosed measuring spoon
- I Curing temperature: approx. 85-100°C
- Curing time: approx. 12 min
- Hardness (Shore D): 87
- Removal rate: Very low

#### **RECOMMENDED APPLICATIONS**

- I Edge examination
- I Mounting of hard materials
- I Curing by means of overpressure with pressure equipment possible, to minimize porosity and increase edge retention

ltem No.	Unit	Description
		COLD MOUNTING MATERIAL KEM 35
		Basis: Methyl methacrylate
		<ul> <li>light green, opaque</li> <li>2-component system: powder + liquid (1.5:1 [Vol%])</li> </ul>
95012022	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons
92002473	1 kg	Powder
92002474	5 kg	Powder
92002512	10 kg	Powder
92002475	500 ml	Liquid
92002476	11	Liquid
92002477	2.5	Liquid

### Notes



### **Qprep** TECHNOVIT 5000

Technovit 5000 is an electrically conductive cold mounting material based on a modified Methyl methacrylate compound. It is suitable for SEM examinations and electrolytic polishing.



#### **PRODUCT ADVANTAGES**

- I Electroconductive
- I Contains copper particles
- I Curing temperature: approx. 85-110 °C
- Curing time: approx. 10 min
- Hardness (Shore D): 91
- Removal rate: Very low

#### **RECOMMENDED APPLICATIONS**

- I Scanning electron microscopy
- I Electrolytic polishing

ltem No.	Unit	Description
		COLD MOUNTING MATERIAL TECHNOVIT 5000
		Basis: Modified methyl methacrylate
		<ul> <li>copper-brown, free of blowholes by using a pressure device</li> <li>2-component system: powder + liquid (20 g : 13 ml)</li> </ul>
95004058	1 kg	Powder
95004059	500 ml	Liquid

# Rprep KEM 60

QPREP KEM 60 is a universally applicable, mineral-filled, MMA-free two-component cold embedding resin. It is characterized by short curing time and good mechanical machinability.



#### PRODUCT ADVANTAGES

- Free of MMA
- I Good chemical resistance
- I Good mechanical machinability
- Curing temperature: approx. 95-110°C
- Curing time: approx. 10 min
- Hardness (Shore D): 85
- Removal rate: Low

#### **RECOMMENDED APPLICATIONS**

- I Routine mounting
- I Very wide range of application
- I Curing by means of overpressure with pressure equipment possible, to minimize porosity



ltem No.	Unit	Description
		COLD MOUNTING MATERIAL KEM 60
		Basis: Tetrahydrofurfuryl-2-methacrylate
		<ul> <li>red, MMA-free</li> <li>2-component system: powder + liquid (2:0.9 [weight-%])</li> </ul>
95014004	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons
95013184	1 kg	Powder
95013185	5 kg	Powder
95013187	500 ml	Liquid

# Rprep KEM 90

QPREP KEM 90 is a transparent two-component cold mounting material based on an epoxy resin. Due to its good flowability, it is well suited for the pre-potting of specimens with filigree and complex geometries.



#### PRODUCT ADVANTAGES

- I Good transparency
- Very low gap formation
  - Low viscosity
- I Suitable for vacuum infiltration
- I Curing temperature: RT to approx. 60°C
- Curing time: 16-24 h
- Hardness (Shore D): 79
- Removal rate: High

#### **RECOMMENDED APPLICATIONS**

- Routine mounting
- Applicable for a wide range of materials
- I Target preparations

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- Vacuum infiltration of porous material surface
- I Pre-potting of assembled printed circuit boards to fix electronic components prior to cutting.
- I Mounting of low hardness material



		COLD MOUNTING MATERIAL KEM 90
		Basis: Epoxy resin
		<ul> <li>transparent, suitable for vacuum infiltration</li> <li>2-components-system: resin + hardener (2:1 [weight-%])</li> </ul>
95017315	1 Set	500 ml resin, 250 ml hardener 40 mixing cups, 40 mixing sticks, 2 dosing spoons
92002484	500 ml	Resin
92002485	250 ml	Hardener





## **Q**prep KEM 92

QPREP KEM 92 is a highly transparent two-component cold mounting material on epoxy resin. It is very well suited for specimens with filigree and complex geometries. In addition, KEM 92 is particularly recommended for mounting materials with temperature-sensitive surfaces and for target preparations.



#### PRODUCT ADVANTAGES

- I Very good transparency
- I Very low gap formation
- Low viscosity
- I Suitable for vacuum infiltration
- I Curing temperature: RT to approx. 35°C
- I Curing time: 12-13 h (50% faster than KEM 90)
- I Hardness (Shore D): 81
- I Removal rate: Medium

#### **RECOMMENDED APPLICATIONS**

- Routine mounting
- I Applicable for a wide range of materials
- I Target preparations of defects in coating surfaces
- I Vacuum infiltration of porous material surface
- I Pre-potting of assembled printed circuit boards to fix electronic components prior to cutting.
- I Mounting of low hardness material

	ltem No.	Unit	Description
			COLD MOUNTING MATERIAL KEM 92
	UP TO 50%		Basis: Epoxy resin
_	FASTER		<ul> <li>transparent, suitable for vacuum infiltration</li> <li>2-components-system: resin + hardener (4:1 [weight-%])</li> </ul>
and and	95017316	1 Set	1   Resin, 250 ml Hardener 40 mixing cups, 40 mixing sticks, 2 dosing spoons
a da -	95016854	11	Resin
	95016855 2	50 ml	Hardener

### Notes



### **Qprep** Vacuum infiltration and pressure device

When cold mounting porous specimens it is purposeful to infiltrate them under vacuum, with a low viscosity mounting medium (epoxy resins). The QPREP infiltration set as well as QPREP infiltration device offer a solution for embedding under vacuum.

For transparent cold embedding using methyl methacrylate, these must be cured in a pressure device under positive pressure (2 - 2.5 bar). This increases the boiling point of the embedding material and suppresses the formation of gas bubbles during polymerization. The QPREP pressure unit is best suited for this purpose.



#### PRODUCT ADVANTAGES

- I Infiltration of porous materials
- I Reinforcement of fragile materials
- Clear/transparent embedding possible with methyl methacrylate

#### **RECOMMENDED APPLICATIONS**

- I Infiltration set and infiltration device for embedding with epoxy resin (KEM 90 / 92)
- Pressure device for embedding with methyl methacrylate (KEM 15, 20, 30, 35, 60 and Technovit 5000)

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			<ul> <li>for cold mounting and hardening using vacuum</li> <li>recommended for Epoxy resin KEM 90 / 92</li> </ul>
PJ	Z6510000	1 Pc.	desiccator incl. non-return valve, vacuum pump, hose and pressure gauge
			INFILTRATION UNIT
			<ul> <li>for cold mounting, pouring and hardening using vacuum</li> <li>recommended for Epoxy resin KEM 90 / 92</li> </ul>
	M6500001	1 Pc.	infiltration unit, 230 V/50 Hz, vacuum pressure 0.8 bar, W 330 x H 270 x D 300 mm (including desiccator with mechanic dosing and vacuum pump, rotating disc for 8 silicon mounting cups Ø 50 mm or 9 PTFE- mounting cups Ø 40 mm, 10 mixing cups)
			mounting cups g 40 mm, 10 mixing cups)

INFILTRATION SET



		PRESSURE EQUIPMENT
		Pressure equipment for bubble free hardening of methyl methacrylates (for embedding with KEM 15, 20, 30, 35, 60 and Technovit 5000) • compressed air required (approx. 6 bar)
95016569	1 Pc.	Pressure equipment, dimensions: B 340 x W340 x H255 mm



# UV mounting

If transparent embedding of a specimen within 1-5 minutes without high heat input or pressure is desired, light-curing embedding is essential. Single component mounting materials based on a modified acrylate are used here. Curing is conducted under UV light at a temperature of approx. 90°C. This method is quite easy to handle and even very small specimens can be fixed and ideally positioned within a very short time.

#### Advantages

- I Very high sample throughput
- I Samples are cured in a very short time (with QATM Qmount within 60 seconds)
- I Transparent and colorless
- I Low curing temperature (approx.90 °C)
- I Suitable for very small samples and temperature sensitive materials



### Rprep KEM 50 UV

QPREP KEM 50 UV is a light-curing, acrylic resin-based cold mounting material. It is ideally suited for target preparations and is usually used for routine specimens as well as soft to medium-hard materials with simple geometries. Curing is taken place by using the UV mounting device Qmount, which allows curing of the samples within 60 seconds using UV radiation of a very narrowly tolerated wavelength range (emission maximum at lamda = 365nm).

### PRODUCT ADVANTAGES

- I Clear, colorless liquid with honey-like viscosity
- Very good transparency
- Curing by means of UV-Light
- I No mixing necessary as it is a one-component system
- Curing temperature: approx. 90°C
- Curing time: 60s
- Hardness (Shore D): 83
- Removal rate: High

#### **RECOMMENDED APPLICATIONS**

- Routine mounting
- Target preparations
- Fixation of small components



		UV MOUNTING MATERIAL KEM 50 UV
		Basis: Modified methacrylate
		<ul> <li>transparent</li> <li>1-component system</li> </ul>
95016840	11	All-in-one liquid
		COLD MOUNTING MOULDS FOR UV MOUNTING
		with exchangeable bottom
95017317	5 Pcs.	Ø 25 mm / H 27 mm
95017318	5 Pcs.	Ø 30 mm / H 27 mm
95017319	5 Pcs.	Ø 40 mm / H 27 mm



# **Qprep** Accessories & tools for cold and UV mounting

The mixing of the different resin components as well as the exact positioning of your specimens influence the quality of your mounting. Therefore, QPREP supports with a wide range of tools and accessories for cold mounting. Mixing of the resin components, fixing and correct positioning of the samples in the cold mounting moulds can thus be realized reliably and safely.



#### ACCESSORIES

- Mixing beakers and spatulas
- I Mounting utilities
- Dosing spoons
- I Steel- and plastic clips







		ACCESSORIES
02001715	100 Dee	Mining surge dispessible 100 ml
92001715	100 Pcs.	Mixing cups, disposable, 180 ml
92004360	1 Pc.	Silicon mixing cup, reusable
92001717	100 Pcs.	Mixing sticks (wood)
92002657	100 Pcs.	Angle adapter for angled polishing, 10°
92001716	10 Pcs.	Dosing spoon for hot and cold mounting material, 13 ml
92001779	10 Pcs.	Dosing spoon for cold mounting material, 20 ml
92001781	10 Pcs.	Dosing spoon for cold mounting material, 13 ml

		CLIP FOR ALIGNING THIN SAMPLES IN MOULD
92002662	100 Pcs.	Steel
92002663	100 Pcs.	Plastic, transparent
92002707	100 Pcs.	Plastic, black
92002708	100 Pcs.	Plastic, red
92002709	100 Pcs.	Plastic, grey

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		FLASTIC MOUNTING AID	
92002623	100 Pcs.	Ø 30 mm, gap 1 mm	
92002625	100 Pcs.	Ø 30 mm, gap 2 mm	
92002624	100 Pcs.	Ø 30 mm, gap 3 mm	

		TRANSPARENT MOUNTING AID
95016787	10 Pcs.	4x1, sample thickness <1 mm
95016788	50 Pcs.	4x1, sample thickness <1 mm
95016789	100 Pcs.	4x1, sample thickness <1 mm
95016790	10 Pcs.	4x2, sample thickness 1-2 mm
95016791	50 Pcs.	4x2, sample thickness 1-2 mm
95016792	100 Pcs.	4x2, sample thickness 1-2 mm
95016793	10 Pcs.	3x3, sample thickness 2-3 mm
95016794	50 Pcs.	3x3, sample thickness 2-3 mm
95016795	100 Pcs.	3x3, sample thickness 2-3 mm
95016796	10 Pcs.	2x4, sample thickness 3-4 mm
95016797	50 Pcs.	2x4, sample thickness 3-4 mm
95016798	100 Pcs.	2x4, sample thickness 3-4 mm

Qprep



# **Qprep** Cold mounting moulds

Choosing a cold mounting mould of the correct size and suitable material the result of the mounting can be optimized. QPREP offers a variety of reusable and chemically resistant moulds of different sizes and materials for this purpose.



#### Silicone rubber, round or rectangular, beveled edge

- I Flexibility of the material enables easy demoulding after curing
- I Thick-walled mould, therefore, not recommended for light curing
- I Without removable base

#### Polypropylene, round

- Semi-transparent, therefore suitable for light curing
- I With removable base for easy demoulding after curing

#### Polyethylene, round

- I Opaque, therefore, not recommended for light curing
- I With removable base for easy demoulding after curing

#### PTFE, beveled edge, round

- I Long period of usage
- I High strength, for long shape retention
- I Opaque, therefore not recommended for light curing
- I With removable base for easy demoulding after curing

ltem No.	Unit	Description
		COLD MOUNTING MOULDS
		Silicon rubber round, beveled edge
		<ul> <li>not suitable for light curing</li> </ul>
95017026	5 Pcs.	Ø 25 mm / H 23 mm
95017027	5 Pcs.	Ø 30 mm / H 25 mm
95017028	5 Pcs.	Ø 32 mm / H 25 mm
95017029	5 Pcs.	Ø 38 mm / H 25 mm
95017030	5 Pcs.	Ø 40 mm / H 30 mm
95017031	5 Pcs.	Ø 50 mm / H 30 mm
		Silicon rubber square, beveled edge
		<ul> <li>Nilicon rubber square, beveled edge</li> <li>not suitable for light curing</li> </ul>
92002509	1 Pc.	
92002509 95017032	1 Pc. 5 Pcs.	not suitable for light curing
		not suitable for light curing     55 x 30 mm / H 22 mm
95017032	5 Pcs.	<ul> <li>not suitable for light curing</li> <li>55 x 30 mm / H 22 mm</li> <li>55 x 30 mm / H 22 mm</li> </ul>
95017032 92002510	5 Pcs. 1 Pc.	<ul> <li>not suitable for light curing</li> <li>55 x 30 mm / H 22 mm</li> <li>55 x 30 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> </ul>
95017032 92002510	5 Pcs. 1 Pc.	<ul> <li>not suitable for light curing</li> <li>55 x 30 mm / H 22 mm</li> <li>55 x 30 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> </ul>
95017032 92002510	5 Pcs. 1 Pc.	<ul> <li>not suitable for light curing</li> <li>55 x 30 mm / H 22 mm</li> <li>55 x 30 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> </ul>
95017032 92002510	5 Pcs. 1 Pc.	<ul> <li>not suitable for light curing</li> <li>55 x 30 mm / H 22 mm</li> <li>55 x 30 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> <li>Polypropylene round</li> <li>suitable for light curing</li> </ul>
95017032 92002510 95017033	5 Pcs. 1 Pc. 5 Pcs.	<ul> <li>not suitable for light curing</li> <li>55 x 30 mm / H 22 mm</li> <li>55 x 30 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> <li>70 x 40 mm / H 22 mm</li> <li>Polypropylene round</li> <li>suitable for light curing</li> <li>with exchangeable bottom</li> </ul>



Item No.	Unit	Description
		COLD MOUNTING MOULDS
		Polyethylene round
		<ul> <li>not suitable for light curing</li> <li>with exchangeable bottom</li> </ul>
95017037	5 Pcs.	Ø 25 mm / H 25 mm
95017038	5 Pcs.	Ø 30 mm / H 25 mm
95017039	5 Pcs.	Ø 40 mm / H 25 mm
95017040	5 Pcs.	Ø 50 mm / H 25 mm
		PTFE round, beveled edge
		<ul> <li>not suitable for light curing</li> <li>with exchangeable bottom</li> </ul>
92002513	1 Pc.	Ø 25 mm / H 23 mm
92002513 95017041	1 Pc. 3 Pcs.	Ø 25 mm / H 23 mm Ø 25 mm / H 23 mm
95017041	3 Pcs.	Ø 25 mm / H 23 mm
95017041 92002514	3 Pcs. 1 Pc.	Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm
95017041 92002514 95017042	3 Pcs. 1 Pc. 3 Pcs.	Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 30 mm / H 25 mm
95017041 92002514 95017042 92002515	3 Pcs. 1 Pc. 3 Pcs. 1 Pc.	Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm
95017041 92002514 95017042 92002515 95017043	3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 3 Pcs.	Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 32 mm / H 25 mm
95017041 92002514 95017042 92002515 95017043 92002516	3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 1 Pc.	Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 32 mm / H 25 mm Ø 38 mm / H 25 mm
95017041 92002514 95017042 92002515 95017043 92002516 95017044	3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 3 Pcs.	<ul> <li>Ø 25 mm / H 23 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> </ul>
95017041 92002514 95017042 92002515 95017043 92002516 95017044 92002517	3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc.	<ul> <li>Ø 25 mm / H 23 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 40 mm / H 30 mm</li> </ul>
95017041 92002514 95017042 92002515 95017043 92002516 95017044 92002517 95017045	3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs.	<ul> <li>Ø 25 mm / H 23 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 40 mm / H 30 mm</li> <li>Ø 40 mm / H 30 mm</li> </ul>
95017041 92002514 95017042 92002515 95017043 92002516 95017044 92002517 95017045 92002518	3 Pcs. 1 Pc. 3 Pcs. 1 Pc.	<ul> <li>Ø 25 mm / H 23 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 30 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 32 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 38 mm / H 25 mm</li> <li>Ø 40 mm / H 30 mm</li> <li>Ø 40 mm / H 30 mm</li> <li>Ø 50 mm / H 30 mm</li> </ul>

### RECOMMENDED APPLICATION

	PTFE mould	PP mould	PE mould	Silicone ruk	ober mould
Mounting material	round	round	round	round	square
KEM 15 plus	0	•	+	•	•
KEM 20	•	••	••	0	-
KEM 30	+	••	<b>++</b>	•	•
KEM 35	••	••	••	•	•
TECHNOVIT 5000	••	••	••	•	0
KEM 60	••	••	••	•	0
KEM 90	0	•	••	•	-
KEM 92	0	•	••	-	-
KEM 50 UV	•	••	•	-	-
+ + very well suited,	🕩 = well suited, 🛛 🧿 =	limited suitable, 😑 =	not suitable	· · · · · · · · · · · · · · · · · · ·	

LD MOUNTING

MOUNTING

Qprep











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## **Gprep** Solution Boxes

In addition to the necessary specialist knowledge, the correct selection of the media suitable for the sample material is essential for a successful preparation. For a secure start close to the application, the QATM solution boxes contain all the grinding and polishing media required for the preparation of a specific material. If the preparation recommendations described are observed, this enables an optimal result.

19 different boxes for different materials are available for media in Ø250 mm and Ø300 mm.



#### **QPREP SOLUTION BOXES INCLUDE:**

- A guide for the preparation of the selected material.
- I Consumables for grinding as well as polishing: Grinding disc, grinding paper, Diamond suspension and polishing cloth

#### PRODUCT ADVANTAGES

- Evaluated preparation guide
- I Consumables for preparation available in sufficient quantity
- Simple instructions for laboratory workers

#### **RECOMMENDED APPLICATIONS**

- I For unknown specimen preparation
- I Ideally suited for new customers as an introduction

Item No. U

Description

#### SOLUTION BOXES

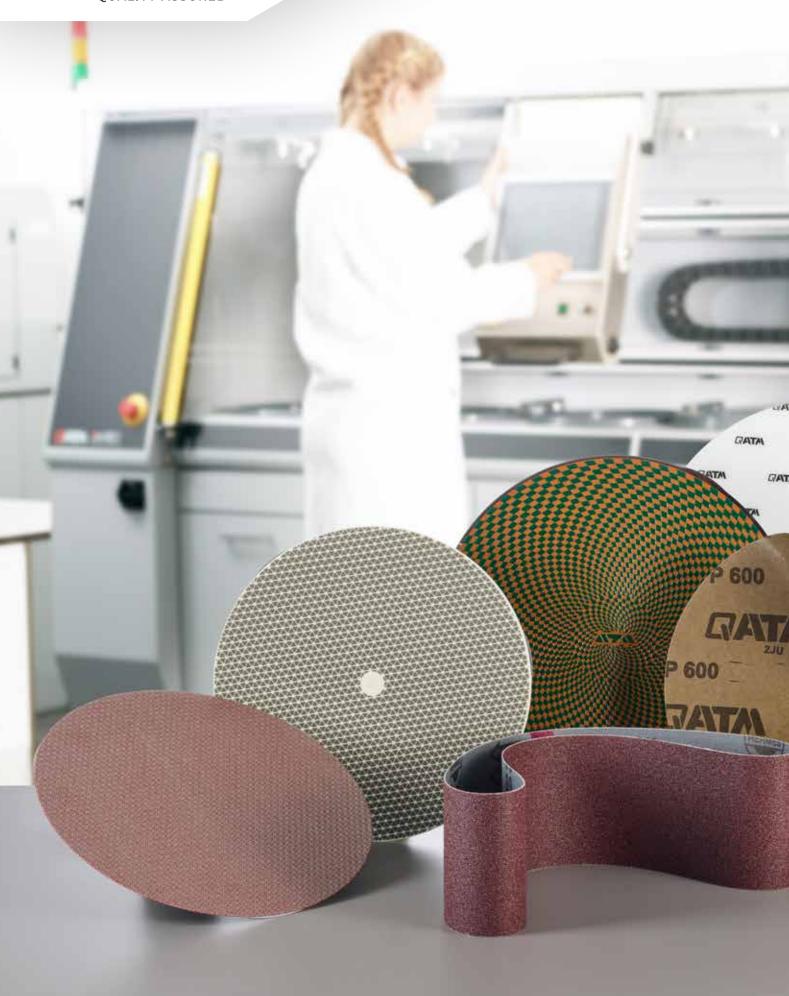
Set of consumables including preparation guide for respective materials

		Al (≥99.7%), w	rought Al alloys
95013972	1 Box	Solution Box	Ø 250 mm
95013973	1 Box	Solution Box	Ø 300 mm
		Aluminum all	oys
95013883	1 Box	Solution Box	Ø 250 mm
95013473	1 Box	Solution Box	Ø 300 mm
		Composites (	CFC/GFC)
95013894	1 Box	Solution Box	Ø 250 mm
95013877	1 Box	Solution Box	Ø 300 mm
		Cast iron (GJS	s/GJL)
95013898	1 Box	Solution Box	Ø 250 mm
95013881	1 Box	Solution Box	Ø 300 mm
		Soft to mediu	m-hard steel
95013896	1 Box	Solution Box	Ø 250 mm
95013879	1 Box	Solution Box	Ø 300 mm
		Medium-hard	to hard steel
95013884	1 Box	Solution Box	Ø 250 mm
95013474	1 Box	Solution Box	Ø 300 mm
		Stainless stee	
95013897	1 Box	Solution Box	Ø 250 mm



Item No.	Unit	Description
		SOLUTION BOXES
		Set of consumables including preparation guide for respective materials
		Steel and welded steel (macro)
95013893	1 Box	Solution Box Ø 250 mm
95013876	1 Box	Solution Box Ø 300 mm
		Nitrided steel
95013899	1 Box	Solution Box Ø 250 mm
95013882	1 Box	Solution Box Ø 300 mm
		Ceramics
95013887	1 Box	Solution Box Ø 250 mm
95013870	1 Box	Solution Box Ø 300 mm
		Cobalt based alloy
95013890	1 Box	Solution Box Ø 250 mm
95013873	1 Box	Solution Box Ø 300 mm
		Nickel based alloy
95013975	1 Box	Solution Box Ø 250 mm
95013976	1 Box	Solution Box Ø 300 mm
		Spray coatings (metallic)
95013889	1 Box	Solution Box Ø 250 mm
95013872	1 Box	Solution Box Ø 300 mm
		Magnesium based alloy
95013895	1 Box	Solution Box Ø 250 mm
95013878	1 Box	Solution Box Ø 300 mm
		Circuit board (non assembled)
95013886	1 Box	Solution Box Ø 250 mm
95013869	1 Box	Solution Box Ø 300 mm
		Circuit board (assembled)
95013891	1 Box	Solution Box Ø 250 mm
95013874	1 Box	Solution Box Ø 300 mm
		Copper and copper alloys
95013885	1 Box	Solution Box Ø 250 mm
95013475	1 Box	Solution Box Ø 300 mm
		Titanium (grade 1-4)
95013892	1 Box	Solution Box Ø 250 mm
95013875	1 Box	Solution Box Ø 300 mm
		Titanium alloys
95013888	1 Box	Solution Box Ø 250 mm







# Consumables for grinding

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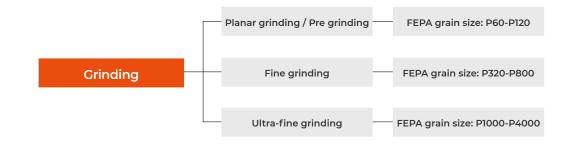
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# Grinding

Mechanical grinding is a machining process using bonded abrasive grains to level and smooth the specimen surface. This process is divided into three categories in materialography as follows:



Typically, silicon carbide (SiC), aluminum dioxide (Al2O3), silicon dioxide (SiO2), zirconium dioxide (ZrO2), diamond or cubic boron nitride (CBN) are used as abrasives. Particular attention must be paid here to low-deformation material removal and at the same time to keeping the number of preparation steps as low as possible. A wide range of QPREP grinding media is available for this purpose.

## **Qprep** Planar grinding stones

If highest stock removal with highest planarity in the shortest time is required, the use of a planar grinding stone in materialographic specimen preparation is essential. In combination with our powerful automatic Qgrid XL planar grinding



machine or our grinding and polishing automat Qpol 300 BOT, even high sample throughputs can be efficiently planar ground.

#### PRODUCT ADVANTAGES

- I Short machining time
- Excellent planarity for all materials
- I Optimized removal rates with Qgrind XL stock removal monitoring
- I Ideal preparatory work for polishing on our Qpol polishing machine series

#### **RECOMMENDED APPLICATIONS**

- I Primary material control with high sample throughput
- I Serial inspections

ltem No.	Unit	Description				
		PLANAR GR	INDING STO	ONES FOR	QGRIND XL	
		Grain Size FEPA standard	Grain Size Outer Ø Inner Ø Abor Size Ø FEPA standard			
		<ul> <li>for tool steel</li> </ul>	<ul> <li>White corundum grinding stone</li> <li>for tool steel (hardened and not hardened), stainless stee steel and cast iron</li> </ul>			
95016741	1 Pc.	100	356 mm	126 mm	38 mm	
	<ul> <li>SIC grinding stone</li> <li>for sintered materials (low- and unalloyed), aluminum, chilled cast iron, copper</li> </ul>					
		<ul> <li>for sintered</li> </ul>	materials (low	- and unalloy	ed), aluminum, chilled	
95016747	1 Pc.	<ul> <li>for sintered</li> </ul>	materials (low	<b>- and unalloy</b> 126 mm	<b>red), aluminum, chilled</b> 38 mm	
95016747	1 Pc.	• for sintered cast iron, co	materials (low pper 356 mm	126 mm		

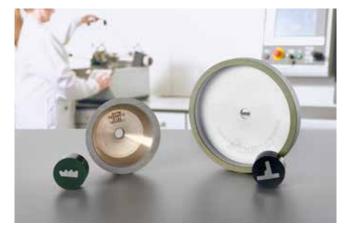




Item No.	Unit	Description	Description			
		PLANAR GI	RINDING STO	ONES FOR	SAPHIR 375	
		Grain Size FEPA standar	Grain Size Outer Ø Inner Ø Abor Size Ø FEPA standard			
		<ul> <li>for tool stee steel and ca</li> </ul>		d not harder	ed), stainless steel,	
95000180	1 Pc.	100	350 mm	90 mm	40 mm	
95000210	1 Pc.	150	350 mm	90 mm	40 mm	
95002034	1 Pc.	180	350 mm	90 mm	40 mm	
			<ul> <li>SIC grinding stone</li> <li>for sintered materials (low- and unalloyed), aluminum, cl cast iron, copper</li> <li>glued on metal carrier plate</li> </ul>			
		cast iron, co	pper	5	ed), aluminum, chilled	
95002223	1 Pc.	cast iron, co	pper	5	ed), aluminum, chilled 40 mm	
95002223	1 Pc.	cast iron, co • glued on m 80 Inner diameter	350 mm	te 90 mm st		

# *Qprep* Diamond cup grinder

If a specimen with parallel faces is desired after precision cutting the use of a diamond cup wheel for further processing is recommended. Used in our precision cutting machines Qcut 150 A and Qcut 200 A (coming soon) with vacuum specimen holder,



95015123

1 Pc.

the QPREP diamond cup grinder enable the user to achieve optimum planar parallelism with high surface quality and reproducibility.

#### PRODUCT ADVANTAGES

- I Planar parallel sample preparation
- I Stock removal with high accuracy
- I Very high repeat accuracy

#### **RECOMMENDED APPLICATIONS**

- Target preparation
- Defect analysis
- I Thin section technology
- Petrographic examinations

Item No.	Unit	Descriptior	١			
		DIAMON	D CUP GRI	NDER		
		Ø	Thickness	Height	Arbor Size	Grain Size
		<ul><li> for glass</li><li> with gal</li></ul>	fiber-reinforc /anic bond	ed boards	oards	
92008573	1 Pc.	100 mm	8 mm	35 mm	12.7 mm	coarse
92006607	1 Pc.	150 mm	8 mm	35 mm	12.7 mm	coarse
<ul> <li>for glass, ceramics, rocks, hard metal</li> <li>with resin bond</li> </ul>						
95015122	1 Pc.	150 mm	8 mm	21.5 mm	12.7 mm	fine

8 mm

21.5 mm

12.7 mm

coarse

Aprep - Grinding - Diamond Cup Grinder

150 mm



# Grinding Discs

QPREP provides a comprehensive portfolio of grinding discs with different bond systems, grain types and gain sizes. This way always allows to find the best solutions for individual requirements. All abrasive elements are on a metal carrier. So they can be directly applied on the QPREP magnetic foil without further tools. The grinding elements have just minimal resilience and ensure a planar surface with high edge retention. By this, it will gain stock removal free of smearing and chipping. QPREP grinding discs realize short preparation times and have in parallel long life times. Thus, will importantly contributes to a sustainable and resource-saving process in materialography.

#### PRODUCT ADVANTAGES

- High endurance
- I High planarity
- I Sample preparation with high edge retention
- I Sustainable and eco-friendly

Range o	f grinding and	polishing systems	

ΗV
al hardness
500 HV
ΗV
ΗV
sal

Removal rate*	Surface
GALAXY	GALAXY
POLARIS M	POLARIS
POLARIS H	POLARIS
QUASAR	QUASAR
VEGA	VEGA

Surface quality*					
GALAXY					
POLARIS M					
POLARIS H					
QUASAR					
VEGA					

\*with newly dressed / cleaned disc and same grit sizes



**N**prep



### FIXATION SYSTEM FOR GRINDING DISCS

### *Rprep* Magnetic foil

For low resilience during grinding (or polishing) as well as best adhesion and easy handling of the QPREP GALAXY grinding discs (or polishing cloths), the QPREP magnetic foil is perfectly suited.



#### PRODUCT ADVANTAGES

- Low resilience
- I One time application on the working disc of the machine
- Long service life
- I Different magnet. field strengths

#### **RECOMMENDED APPLICATIONS**

- I For the use of all GALAXY grinding discs and polishing cloths
- Frequent change of grinding discs and polishing cloths

ltem No.	Unit	Description
		MAGNETIC FOIL, SELF-ADHESIVE
		Ø thickness
		Magnetic foil, normal adhesion <ul> <li>to apply on working wheel</li> </ul>
92008528	1 Pc.	200 mm 1 mm
92005820	1 Pc.	250 mm 1 mm
92005822	1 Pc.	300 mm 1 mm
05016775	1.0-	Magnetic foil, strong adhesion <ul> <li>to apply on working wheel</li> </ul>
95016345	1 Pc.	200 mm 1 mm
95016346	1 Pc.	250 mm 1 mm
95012161	1 Pc.	300 mm 1 mm
95014137	1 Pc.	350 mm 1 mm
		Magnetic foil, strongest adhesion • to apply on working wheel • Increased magnetic adhesion by higher material thickness
95016298	1 Pc.	200 mm 2 mm
95016300	1 Pc.	250 mm 2 mm
95016301	1 Pc.	300 mm 2 mm
95016302	1 Pc.	350 mm 2 mm







# **Galaxy** diamond grinding disc

QPREP GALAXY diamond grinding discs are with specially arranged elements, which contains resin-bonded diamond grains, on a stainless-steel metal carrier equipped. They are used for planar and fine grinding of medium-hard and hard materials. The colorcoded grinding discs cover the FEPA grain sizes P80 to P1000. The color coding for the individual grain size ranges can be found in the application table.



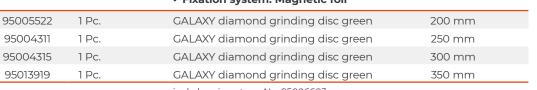
#### **PRODUCT ADVANTAGES**

- High stock removal
- Short processing times
- High planarity

#### **RECOMMENDED APPLICATIONS**

- Ľ Steel with medium and high hardness
- Cast iron (CJS / CJL) I.
- Composites I
- Hard metal
- Glass ī.

	ltem No.	Unit	Description		
			GALAXY DIAMOND GRINDING DISCS BOND: RESIN		
			Description	Ø	
			for medium to hard materials • planar grinding: grey (P80-100) • Fixation system: Magnetic foil		
	95005505	1 Pc.	GALAXY diamond grinding disc grey	200 mm	
CONTRACTOR	95004279	1 Pc.	GALAXY diamond grinding disc grey	250 mm	
	95004280	1 Pc.	GALAXY diamond grinding disc grey	300 mm	
	95013917	1 Pc.	GALAXY diamond grinding disc grey	350 mm	
			for medium to hard materials • planar grinding: red (P100-120) • Fixation system: Magnetic foil		
	95005521	1 Pc.	GALAXY diamond grinding disc red	200 mm	
	95004310	1 Pc.	GALAXY diamond grinding disc red	250 mm	
	95004314	1 Pc.	GALAXY diamond grinding disc red	300 mm	
	95013918	1 Pc.	GALAXY diamond grinding disc red	350 mm	
			incl. dressing stone No. 95006603		
			for medium to hard materials • fine grinding: green (P180-320) • Fixation system: Magnetic foil		



incl. dressing stone No. 95006603

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GRINDING

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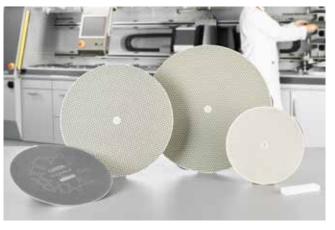
	ltem No.	Unit	Description	
			GALAXY DIAMOND GRINDING DISCS BOND: RESIN	
			Description	Ø
			for medium to hard materials • fine grinding: blue (P400-600) • Fixation system: Magnetic foil	
	95005523	1 Pc.	GALAXY diamond grinding disc blue	200 mm
+	95004312	1 Pc.	GALAXY diamond grinding disc blue	250 mm
	95004316	1 Pc.	GALAXY diamond grinding disc blue	300 mm
	95013920	1 Pc.	GALAXY diamond grinding disc blue	350 mm
			incl. dressing stone No. 95006603	
			for medium to hard materials • fine grinding: yellow (P800-1000) • Fixation system: Magnetic foil	
	95005524	1 Pc.	GALAXY diamond grinding disc yellow	200 mm
	95004313	1 Pc.	GALAXY diamond grinding disc yellow	250 mm
	95004317	1 Pc.	GALAXY diamond grinding disc yellow	300 mm
	95013921	1 Pc.	GALAXY diamond grinding disc yellow	350 mm
Section 2			incl. dressing stone No. 95006603	

### Notes



# **Oprep** POLARIS M diamond grinding disc

QPREP Polaris M is a grinding disc on a zinc-plated metal carrier for pre- and fine grinding of medium-hard materials. The back of the product is coated with a high-quality non-slip print. The grinding disc is equipped with diamonds bonded in medium-hard synthetic resin. The functional back print provides secure adhesion to the magnetic foil.



#### **PRODUCT ADVANTAGES**

- I High stock removal
- Particularly high planarity with high surface quality
- Long life time

#### **RECOMMENDED APPLICATIONS**

- I Metal materials of medium hardness < 500 HV
- I Polymer materials
- Composites
- I Ceramics

	ltem No.	Unit	Description	
			POLARIS M DIAMOND GRINDING	G DISCS
			Description	Grain Size
			for medium-hard materials • incl. cleaning stone No. (95015077) • Fixation system: Magnetic foil	
			200 mm Ø	
	95014991	1 Pc.	POLARIS M diamond grinding disc	60 µm
	95014992	1 Pc.	POLARIS M diamond grinding disc	30 µm
	95014993	1 Pc.	POLARIS M diamond grinding disc	15 µm
	95014994	1 Pc.	POLARIS M diamond grinding disc	6 µm
	95014995	1 Pc.	POLARIS M diamond grinding disc	3 µm
-			250 mm Ø	
	95015016	1 Pc.	POLARIS M diamond grinding disc	60 µm
	95015017	1 Pc.	POLARIS M diamond grinding disc	30 µm
	95015018	1 Pc.	POLARIS M diamond grinding disc	15 µm
	95015019	1 Pc.	POLARIS M diamond grinding disc	6 µm
	95015020	1 Pc.	POLARIS M diamond grinding disc	3 µm
			300 mm Ø	
	95015041	1 Pc.	POLARIS M diamond grinding disc	60 µm
	95015042	1 Pc.	POLARIS M diamond grinding disc	30 µm
	95015043	1 Pc.	POLARIS M diamond grinding disc	15 µm
	95015044	1 Pc.	POLARIS M diamond grinding disc	6 µm
	95015045	1 Pc.	POLARIS M diamond grinding disc	3 µm
_			350 mm Ø	
	95015066	1 Pc.	POLARIS M diamond grinding disc	60 µm
	95015067	1 Pc.	POLARIS M diamond grinding disc	30 µm
	95015068	1 Pc.	POLARIS M diamond grinding disc	15 µm
	95015069	1 Pc.	POLARIS M diamond grinding disc	6 µm
	95015070	1 Pc.	POLARIS M diamond grinding disc	3 µm



# **Qprep** POLARIS H diamond grinding disc

QPREP Polaris H is a grinding disc on a zinc-plated metal carrier for pre- and fine grinding of hard materials. The back of the product is coated with a high-quality non-slip print. The grinding disc is equipped with diamonds bonded in hard synthetic resin. The functional back print provides secure adhesion to the magnetic foil.



#### PRODUCT ADVANTAGES

- I High stock removal
- I Particularly high planarity with high surface quality
- Long life time

#### **RECOMMENDED APPLICATIONS**

- Metal materials of higher hardness > 500HV
- I Fiber reinforced plastics
- Composites
- Ceramics
- Rocks

Item No.	Unit	Description	
		POLARIS H DIAMOND GRINDING	
		Description	Grain Size
		for hard materials • incl. cleaning stone No. (95015077) • Fixation system: Magnetic foil	
		200 mm Ø	
95014985	1 Pc.	POLARIS H diamond grinding disc	125 µm
95014986	1 Pc.	POLARIS H diamond grinding disc	60 µm
95014987	1 Pc.	POLARIS H diamond grinding disc	30 µm
95014988	1 Pc.	POLARIS H diamond grinding disc	15 µm
95014989	1 Pc.	POLARIS H diamond grinding disc	6 µm
 95014990	1 Pc.	POLARIS H diamond grinding disc	3 µm
		250 mm Ø	
 95015010	1 Pc.	POLARIS H diamond grinding disc	125 µm
95015010	1 Pc.	POLARIS H diamond grinding disc	60 μm
95015012	1 Pc.	POLARIS H diamond grinding disc	30 µm
95015012	1 Pc.	POLARIS H diamond grinding disc	15 µm
95015013	1 Pc.	POLARIS H diamond grinding disc	6 μm
95015014	1 Pc.	POLARIS H diamond grinding disc	3μm
 55015015	1 F C.		5 µm
		300 mm Ø	
95015035	1 Pc.	POLARIS H diamond grinding disc	125 µm
95015036	1 Pc.	POLARIS H diamond grinding disc	60 µm
95015037	1 Pc.	POLARIS H diamond grinding disc	30 µm
95015038	1 Pc.	POLARIS H diamond grinding disc	15 µm
95015039	1 Pc.	POLARIS H diamond grinding disc	6 µm
 95015040	1 Pc.	POLARIS H diamond grinding disc	3 µm
		350 mm Ø	
95015060	1 Pc.	POLARIS H diamond grinding disc	125 µm
95015061	1 Pc.	POLARIS H diamond grinding disc	60 µm
95015062	1 Pc.	POLARIS H diamond grinding disc	30 µm
95015063	1 Pc.	POLARIS H diamond grinding disc	15 µm
95015064	1 Pc.	POLARIS H diamond grinding disc	6 µm
95015065	1 Pc.	POLARIS H diamond grinding disc	3 μm



# **QPREP** QUASAR diamond grinding disc

QPREP Quasar is a grinding disc on a zinc-plated metal carrier for planar- and pre grinding of hard materials. The back of the product is coated with a high-quality non-slip print. The grinding disc is equipped with diamonds bonded in hard epoxy resin. The functional back print provides secure adhesion to the magnetic foil.



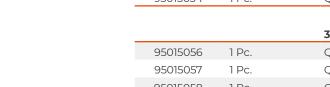
#### **PRODUCT ADVANTAGES**

- Ľ. High stock removal
- Particularly high planarity with high surface quality г
- E. Very long life time

#### **RECOMMENDED APPLICATIONS**

- Hard ferrous materials I.
- L Nickel base-super alloys
- Hard metals Т
- Ceramics Т

	Item No.	Unit	Description	
			QUASAR DIAMOND GRINDING D	DISCS
			Description	Grain Size
			for hard materials • incl. dressing stone No. (95015076) • Fixation system: Magnetic foil	
ða.			200 mm Ø	
	95014981	1 Pc.	QUASAR diamond grinding disc	252 µm
	95014982	1 Pc.	QUASAR diamond grinding disc	125 µm
	95014983	1 Pc.	QUASAR diamond grinding disc	91 µm
W	95014984	1 Pc.	QUASAR diamond grinding disc	46 µm
r				
			250 mm Ø	
	95015006	1 Pc.	QUASAR diamond grinding disc	252 µm
	95015007	1 Pc.	QUASAR diamond grinding disc	125 µm
	95015008	1 Pc.	QUASAR diamond grinding disc	91 µm
	95015009	1 Pc.	QUASAR diamond grinding disc	46 µm
			300 mm Ø	
	95015031	1 Pc.	QUASAR diamond grinding disc	252 µm
	95015032	1 Pc.	QUASAR diamond grinding disc	125 µm
	95015033	1 Pc.	QUASAR diamond grinding disc	91 µm
	95015034	1 Pc.	QUASAR diamond grinding disc	46 µm
			350 mm Ø	
	95015056	1 Pc.	QUASAR diamond grinding disc	252 µm
	95015057	1 Pc.	QUASAR diamond grinding disc	125 µm
	95015058	1 Pc.	QUASAR diamond grinding disc	91 µm
	95015059	1 Pc.	QUASAR diamond grinding disc	46 µm





# **Qprep** VEGA diamond grinding disc

QPREP Vega is a grinding disc on a zinc-plated metal carrier for planar and pre-grinding of hard materials. On the back side the product is coated with a high-quality non-slip print. The grinding disc is equipped with diamonds bonded in nickel. The functional back print provides secure adhesion to the magnetic foil.



#### **PRODUCT ADVANTAGES**

- High stock removal £.
- Particularly high planarity г
- Very long life time

#### **RECOMMENDED APPLICATIONS**

- Hard ferrous materials L
- Composites
- Ceramics Ľ
- Rocks Т
- Ľ Possible to grind unmounted samples

		VEGA DIAMOND GRINDING DISCS
		Description
		for hard materials, for planar and pre-grine • Fixation system: Magnetic foil
		200 mm Ø
95015001	1 Pc.	VEGA diamond grinding disc
95015002	1 Pc.	VEGA diamond grinding disc
95015003	1 Pc.	VEGA diamond grinding disc
95015004	1 Pc.	VEGA diamond grinding disc
 95015005	1 Pc.	VEGA diamond grinding disc
		250 mm Ø
95015026	1 Pc.	VEGA diamond grinding disc
95015027	1 Pc.	VEGA diamond grinding disc
95015028	1 Pc.	VEGA diamond grinding disc
95015029	1 Pc.	VEGA diamond grinding disc
95015030	1 Pc.	VEGA diamond grinding disc
		300 mm Ø
95015051	1 Pc.	VEGA diamond grinding disc
95015052	1 Pc.	VEGA diamond grinding disc
95015053	1 Pc.	VEGA diamond grinding disc
95015054	1 Pc.	VEGA diamond grinding disc
95015055	1 Pc.	VEGA diamond grinding disc
		350 mm Ø
95016235	1 Pc.	VEGA diamond grinding disc
95016236	1 Pc.	VEGA diamond grinding disc

95016238

95016239

1 Pc.

1 Pc.

		Description	Grain Size			
		for hard materials, for planar and p • Fixation system: Magnetic foil	re-grinding			
		200 mm Ø				
95015001	1 Pc.	VEGA diamond grinding disc	125 µm			
95015002	1 Pc.	VEGA diamond grinding disc	75 µm			
95015003	1 Pc.	VEGA diamond grinding disc	54 µm			
95015004	1 Pc.	VEGA diamond grinding disc	25 µm			
95015005	1 Pc.	VEGA diamond grinding disc	10 µm			
		250 mm Ø				
95015026	1 Pc.	VEGA diamond grinding disc	125 µm			
95015027	1 Pc.	VEGA diamond grinding disc	75 µm			
95015028	1 Pc.	VEGA diamond grinding disc	54 µm			
95015029	1 Pc.	VEGA diamond grinding disc	25 µm			
95015030	1 Pc.	VEGA diamond grinding disc	10 µm			
		300 mm Ø				
95015051	1 Pc.	VEGA diamond grinding disc	125 µm			
95015052	1 Pc.	VEGA diamond grinding disc	75 µm			
95015053	1 Pc.	VEGA diamond grinding disc	54 µm			
95015054	1 Pc.	VEGA diamond grinding disc	25 µm			
95015055	1 Pc.	VEGA diamond grinding disc	10 µm			
		350 mm Ø				
95016235	1 Pc.	VEGA diamond grinding disc	125 µm			
95016236	1 Pc.	VEGA diamond grinding disc	75 µm			
95016237	1 Pc.	VEGA diamond grinding disc	54 µm			

VEGA diamond grinding disc

VEGA diamond grinding disc

25 µm

10 µm



# **Qprep** CONTERO fine grinding discs

QPREP Contero S and H are general purpose fine grinding discs with a specially arranged inflexible grinding surface. The grinding elements consist of a reinforced composite matrix and are mounted on a stainless metal carrier. During the fine grinding process, diamond suspension is regularly fed to the disc, in this way the diamonds partially are implant in the functional surface. This leads to high stock removal rates and creates very low-deformation sample surfaces, which can be polished easily and efficiently afterwards.



#### **PRODUCT ADVANTAGES**

- I High stock removal rate
- Long life time
- I High edge retention

#### **RECOMMENDED APPLICATIONS**

- All-purpose usage
- I Routine testing with high sample throughput
- I Edge examinations
- I Layer typography characterization
- I For use with diamond grain size: 15 / 9 / 6  $\mu m$

		CONTERO S FINE GRINDING D	ISCS
		Description	Ø
		for soft to medium materials • Fixation system: Magnetic foil	
95013192	1 Pc.	Contero S fine grinding disc	200 mm
95013194	1 Pc.	Contero S fine grinding disc	250 mm
95013196	1 Pc.	Contero S fine grinding disc	300 mm
95013922	1 Pc.	Contero S fine grinding disc	350 mm

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		for medium to hard materials • Fixation system: Magnetic foil	
95013193	1 Pc.	Contero H fine grinding disc	200 mm
95013195	1 Pc.	Contero H fine grinding disc	250 mm
95013197	1 Pc.	Contero H fine grinding disc	300 mm
95013923	1 Pc.	Contero H fine grinding disc	350 mm

Item No.	Unit	Description
		CLEANING BRUSHES
		Description
		<ul> <li>for cleaning of grinding and fine grinding discs</li> </ul>
95016623	1 Pc.	Nylon brush



Aprep - Grinding - Grinding Discs



# Grinding papers and foils

As an alternative to QPREP grinding discs, specimen preparation is also possible using QPREP grinding papers and foils. These differ in the type of carrier material and the possibility of the fixation systems to be used (double-sided adhesive carrier, X-Tap, Quick-Tap).

#### Grinding papers:

- I Foiled back, carrier material paper
- Self-adhesive back, carrier material paper
- I Paper back, carrier material paper

### Grinding foils:

Back foil, carrier material foil



### Notes



### FIXATION SYSTEM FOR GRINDING FOILS AND PAPERS WITH FOIL BACKING

### *Oprep* Adhesive carrier disc

The QPREP adhesive carrier is characterized by a nano-surface, which ensured good adhesion and easy removal of the grinding medium.



#### **PRODUCT ADVANTAGES**

- No glue backing, therefore no glue residues
- I Good adhesion to work disc as well as good adhesion to grinding paper and grinding foil
- Easy removal and repositioning of grinding paper and grinding foil

### RECOMMENDED APPLICATIONS

- For direct application to the working disc
- I For use with grinding paper and grinding foil

Item No.	Unit	Description
		ADHESIVE CARRIER DISCS, DOUBLE-SIDED
95003781	1 Pc.	200 mm
95003607	1 Pc.	250 mm
95003608	1 Pc.	300 mm
95014566	1 Pc.	350 mm

before initial use please remove protective foil on both sides





### Notes



# *Oprep* Silicon carbide grinding foils

QPREP silicon carbide grinding foils can be used individually and are ideally suited for a wide range of varied materials. They offer a high degree of flexibility, especially for frequently changing material variants. Furthermore, the foils are ideally suited for the "Vakujet" vacuum fixation in the QATM automatic grinding and polishing machine Qpol 300 Bot. QPREP silicon carbide grinding foils are available in diameters of 200 / 250 / 300 / and 350 mm and in 8 different grain sizes.



### PRODUCT ADVANTAGES

- I Suitable for vacuum fixation
- Particularly high planarity
- No curling
- Tear and water resistant, so weakening during the grinding process can be excluded
- Low resilience
- I Multiple uses possible in connection with QPREP adhesive carrier disc

#### **RECOMMENDED APPLICATIONS**

- All-purpose usage
- I Suitable for planar, pre- and fine grinding steps due to different grain sizes

Iter	m No.	Unit	Description	
			Silicon carbide g	grinding foils
				Grain FEPA standard
			• Fixation system:	Adhesive carrier disc
			200 mm Ø	
920	08594	100 Pcs.	SiC grinding foil	P120
920	08595	100 Pcs.	SiC grinding foil	P180
950	07925	100 Pcs.	SiC grinding foil	P240
920	08592	100 Pcs.	SiC grinding foil	P320
920	08591	100 Pcs.	SiC grinding foil	P600
950	00870	100 Pcs.	SiC grinding foil	P800
920	08596	100 Pcs.	SiC grinding foil	P1200
950	08558	100 Pcs.	SiC grinding foil	P2500
			250 mm Ø	
020	08557	100 Pcs.	SiC grinding foil	P120
	08558	100 Pcs.	SiC grinding foil	P120
	00899	100 Pcs.	SiC grinding foil	P240
	06305 06304	100 Pcs. 100 Pcs.	SiC grinding foil SiC grinding foil	P320 P600
	00304	100 Pcs.	SiC grinding foil	P800
	00900	100 Pcs.	SiC grinding foil	P1200
920	08639	100 Pcs.	SiC grinding foil	P2500
			300 mm Ø	
920	08561	100 Pcs.	SiC grinding foil	P120
920	08658	100 Pcs.	SiC grinding foil	P180
950	00902	100 Pcs.	SiC grinding foil	P240
920	06303	100 Pcs.	SiC grinding foil	P320
920	06302	100 Pcs.	SiC grinding foil	P600
950	00903	100 Pcs.	SiC grinding foil	P800
920	08562	100 Pcs.	SiC grinding foil	P1200
920	08621	100 Pcs.	SiC grinding foil	P2500
			350 mm Ø	
950	015187	100 Pcs.	SiC grinding foil	P120
	015188	100 Pcs.	SiC grinding foil	P180
	015189	100 Pcs.	SiC grinding foil	P240
	015190	100 Pcs.	SiC grinding foil	P320
	015191	100 Pcs.	SiC grinding foil	P600
	015192	100 Pcs.	SiC grinding foil	P800
	015193	100 Pcs.	SiC grinding foil	P1200
	015194	100 Pcs.	SiC grinding foil	P2500



# **Qprep** Silicon carbide grinding paper with foil backing

Silicon carbide grinding paper with foil backing can be used individually and are ideally suited for a wide range of varied materials. They offer a high degree of flexibility, especially for frequently changing material variants. Furthermore, the foiled paper enables the use of the "Vakujet" vacuum fixation in the QATM automatic grinding and polishing machine Qpol 300 Bot. QPREP silicon carbide grinding paper with foil backing is available in diameters of 200 / 250 / 300 / and 350 mm and in 12 different grain sizes.



#### **PRODUCT ADVANTAGES**

- Suitable for vacuum fixation
- I Directionally oriented applied abrasive grains with homogeneous distribution for a high cutting effect and efficient material removal
- I Ideally suited for the QPREP adhesive carrier disc
- I 12 grain sizes for a wide range of applications

SILICON CARBIDE GRINDING PAPER

#### **RECOMMENDED APPLICATIONS**

WITH FOIL BACKING

- I All-purpose usage
- I Suitable for planar, pre- and fine grinding steps due to different grain sizes

Grain FEPA standard

<

		Fixation system: Adhesive carrier disc			
		200 mm Ø			
95011898	100 Pcs.	SiC grinding paper with foil backing	P80		
95011899	100 Pcs.	SiC grinding paper with foil backing	P120		
95011900	100 Pcs.	SiC grinding paper with foil backing	P180		
95011901	100 Pcs.	SiC grinding paper with foil backing	P240		
95011902	100 Pcs.	SiC grinding paper with foil backing	P320		
95011903	100 Pcs.	SiC grinding paper with foil backing	P400		
95011904	100 Pcs.	SiC grinding paper with foil backing	P500		
95011905	100 Pcs.	SiC grinding paper with foil backing	P600		
95011906	100 Pcs.	SiC grinding paper with foil backing	P800		
95011907	100 Pcs.	SiC grinding paper with foil backing	P1000		
95011908	100 Pcs.	SiC grinding paper with foil backing	P1200		
95011909	100 Pcs.	SiC grinding paper with foil backing	P2500		

		250 mm Ø	
95011928	100 Pcs.	SiC grinding paper with foil backing	P80
95011929	100 Pcs.	SiC grinding paper with foil backing	P120
95011930	100 Pcs.	SiC grinding paper with foil backing	P180
95011931	100 Pcs.	SiC grinding paper with foil backing	P240
95011932	100 Pcs.	SiC grinding paper with foil backing	P320
95011933	100 Pcs.	SiC grinding paper with foil backing	P400
95011934	100 Pcs.	SiC grinding paper with foil backing	P500
95011935	100 Pcs.	SiC grinding paper with foil backing	P600
95011936	100 Pcs.	SiC grinding paper with foil backing	P800
95011937	100 Pcs.	SiC grinding paper with foil backing	P1000
95011938	100 Pcs.	SiC grinding paper with foil backing	P1200
95011939	100 Pcs.	SiC grinding paper with foil backing	P2500

A**prep** - Grinding - Grinding Paper



nit			

### SILICON CARBIDE GRINDING PAPER WITH FOIL BACKING

#### Grain FEPA standard

P2500

### Fixation system: Adhesive carrier disc

		300 mm Ø	
95011943	100 Pcs.	SiC grinding paper with foil backing	P80
95011944	100 Pcs.	SiC grinding paper with foil backing	P120
95011945	100 Pcs.	SiC grinding paper with foil backing	P180
95011946	100 Pcs.	SiC grinding paper with foil backing	P240
95011947	100 Pcs.	SiC grinding paper with foil backing	P320
95011948	100 Pcs.	SiC grinding paper with foil backing	P400
95011949	100 Pcs.	SiC grinding paper with foil backing	P500
95011950	100 Pcs.	SiC grinding paper with foil backing	P600
95011951	100 Pcs.	SiC grinding paper with foil backing	P800
95011952	100 Pcs.	SiC grinding paper with foil backing	P1000
95011953	100 Pcs.	SiC grinding paper with foil backing	P1200
95011954	100 Pcs.	SiC grinding paper with foil backing	P2500
		350 mm Ø	
95014005	100 Pcs.	<b>350 mm Ø</b> SiC grinding paper with foil backing	P80
95014005 95014006	100 Pcs. 100 Pcs.		P80 P120
		SiC grinding paper with foil backing	
95014006	100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing	P120
95014006 95014007	100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180
95014006 95014007 95014008	100 Pcs. 100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180 P240
95014006 95014007 95014008 95014009	100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180 P240 P320
95014006 95014007 95014008 95014009 95014010	100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180 P240 P320 P400
95014006 95014007 95014008 95014009 95014010 95014011	100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180 P240 P320 P400 P500
95014006 95014007 95014008 95014009 95014010 95014011 95014012	100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180 P240 P320 P400 P500 P600
95014006 95014007 95014009 95014009 95014010 95014011 95014012 95014013	100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs. 100 Pcs.	SiC grinding paper with foil backing SiC grinding paper with foil backing	P120 P180 P240 P320 P400 P500 P600 P800

SiC grinding paper with foil backing

### Notes

95014016

100 Pcs.



#### FIXATION SYSTEM FOR SELF-ADHESIVE GRINDING PAPER

### **П**ргер Х-Тар

The QPREP X-Tap is ideally suited for fast and residue-free attachment of self-adhesive grinding papers and polishing cloths. This special attachment system offers minimal impact elasticity and can be applied either directly to the work disc or as QPREP GALAXY X-Tap with metal backing plate to the QPREP magnetic foil.



#### PRODUCT ADVANTAGES

- I Quick change of self-adhesive grinding paper or self-adhesive polishing cloths without adhesive residues
- I Low resilience, due to the thin and solid structure of the QPREP X-Tap
- I Easier cleaning compared to adhesive carrier disc

#### **RECOMMENDED APPLICATIONS**

- Preparations with high edge sharpness
- I Carrier plate for self-adhesive grinding paper and self-adhesive polishing cloths

	ltem No.	Unit	Description
			Χ-ΤΑΡ
			Ø
			X-Tap (self-adhesive to stick on the working wheel)
	95017015	1 Pc.	200 mm
	95017016	1 Pc.	250 mm
	95017017	1 Pc.	300 mm
and the second	95017018	1 Pc.	350 mm

			GALAXY-X-Tap (for using with magnetic foil)
	95017019	1 Pc.	200 mm
	95017020	1 Pc.	250 mm
	95017021	1 Pc.	300 mm
	95017022	1 Pc.	350 mm
_			



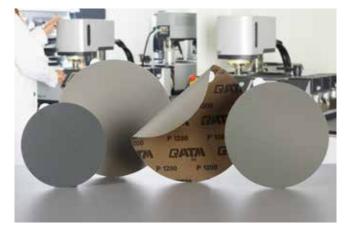


QATM price list 2023/E · valid as of December 1, 2022 · all prices FCA Mammelzen · General Terms and Conditions: www.qatm.com/terms ATM Qness GmbH · Emil-Reinert-Str. 2 · 57636 Mammelzen · Germany Phone: +49 2681 9539-0 · Fax: +49 2681 9539-20 · E-Mail: info@qatm.com · www.qatm.com



# **Qprep** Silicon carbide grinding papers, self-adhesive

Self-adhesive QPREP silicon carbide grinding papers can be used individually and are ideally suited for a wide range of varied materials. They offer a high degree of flexibility, especially for frequently changing material variants. The use of the QPREP X-Tap fixation system allows efficient and non-residual changing of the grinding paper between the different grinding stages. Self-adhesive QPREP silicon carbide grinding paper is available in diameters of 200 / 250 / and 300 mm and in 13 different grain sizes.



#### PRODUCT ADVANTAGES

- I Directionally oriented applied abrasive grains with homogeneous distribution for a high cutting effect and efficient material removal
- I Very high adhesion on the fixation system
- Low resilience in conjunction with QPREP X-Tap

#### **RECOMMENDED APPLICATIONS**

- All-purpose usage
- I Suitable for planar, pre- and fine grinding steps due to different grain sizes

			SILICON CARBIDE GRINDING PAPERS, SELF-ADHESIVE		
			Grain FEPA standard		
			Fixation system: X-Tap		
			200 mm Ø		
	92002544	100 Pcs.	SiC grinding paper	P80	
	92002545	100 Pcs.	SiC grinding paper	P120	
	92002546	100 Pcs.	SiC grinding paper	P180	
	92002547	100 Pcs.	SiC grinding paper	P240	
	92002548	100 Pcs.	SiC grinding paper	P320	
	92002549	100 Pcs.	SiC grinding paper	P400	
	92004516	100 Pcs.	SiC grinding paper	P600	
	92002550	100 Pcs.	SiC grinding paper	P800	
	92002551	100 Pcs.	SiC grinding paper	P1000	
	92002638	100 Pcs.	SiC grinding paper	P1200	
	92002761	100 Pcs.	SiC grinding paper	2400*	
	92004561	100 Pcs.	SiC grinding paper	P2500	
	92002762	100 Pcs.	SiC grinding paper	4000*	
			* 1	C C' ' I	

\*slurry coated, for a finer surface finish

		250 mm Ø	
92001643	100 Pcs.	SiC grinding paper	P80
92001644	100 Pcs.	SiC grinding paper	P120
92001645	100 Pcs.	SiC grinding paper	P180
92004953	100 Pcs.	SiC grinding paper	P240
92001647	100 Pcs.	SiC grinding paper	P320
92001648	100 Pcs.	SiC grinding paper	P400
92001649	100 Pcs.	SiC grinding paper	P600
92001650	100 Pcs.	SiC grinding paper	P800
92001651	100 Pcs.	SiC grinding paper	P1000
92001652	100 Pcs.	SiC grinding paper	P1200
92002763	100 Pcs.	SiC grinding paper	2400*
92004563	100 Pcs.	SiC grinding paper	P2500
92002764	100 Pcs.	SiC grinding paper	4000*

\*slurry coated, for a finer surface finish



70

			SILICON CARBIDE GRINDING PAPERS, SELF-ADHESIVE		
			Grain FEPA standard		
			Fixation system: X-Tap		
			300 mm Ø		
	92001654	100 Pcs.	SiC grinding paper	P80	
	92001655	100 Pcs.	SiC grinding paper	P120	
33	92001657	100 Pcs.	SiC grinding paper	P180	
28	92001658	100 Pcs.	SiC grinding paper	P240	
/	92001659	100 Pcs.	SiC grinding paper	P320	
r	92001660	100 Pcs.	SiC grinding paper	P400	
	92001661	100 Pcs.	SiC grinding paper	P600	
	92001662	100 Pcs.	SiC grinding paper	P800	
	92001663	100 Pcs.	SiC grinding paper	P1000	
	92001664	100 Pcs.	SiC grinding paper	P1200	
	92002765	100 Pcs.	SiC grinding paper	2400*	
	92004564	100 Pcs.	SiC grinding paper	P2500	
	92002766	100 Pcs.	SiC grinding paper	4000*	

\*slurry coated, for a finer surface finish

# **Qprep** Zirconia alumina grinding papers, self-adhesive

QPREP Zirconia alumina grinding papers are high-performance grinding papers with a long lifetime for planar and pre-grinding. The zirconia alumina grain used constantly releases new cutting surfaces during the grinding process and enables efficient stock removal even at high contact forces. The grinding paper is free of silicon carbide and is therefore also suitable for sample preparation for



optical emission spectrometry (spectral analysis OES). QPREP zirconia alumina grinding paper is available in diameters of 200 / 250 / and 300 mm and in 3 different pre-grinding grit sizes.

#### **PRODUCT ADVANTAGES**

- Long lifetime
- I Very high stock removal
- I Low resilience in conjunction with QPREP X-Tap

#### **RECOMMENDED APPLICATIONS**

- I Planar and pre-grinding of larger specimen cross-sections
- I Sample preparation for spectral analysis

	ltem No.	Unit	Description	
			ZIRCONIA ALUMINA GRINDING PAPERS, SELF-ADHESIVE	
			Grain	FEPA standard
			Fixation system: X-Tap	
			200 mm Ø	
	92002374	25 Pcs.	Zirconia alumina grinding paper	P60
	92002375	25 Pcs.	Zirconia alumina grinding paper	P120
	92002376	25 Pcs.	Zirconia alumina grinding paper	P180
			250 mm Ø	
	92002382	25 Pcs.	Zirconia alumina grinding paper	P60
	92002383	25 Pcs.	Zirconia alumina grinding paper	P120
	92002384	25 Pcs.	Zirconia alumina grinding paper	P180
			300 mm Ø	
	92002386	25 Pcs.	Zirconia alumina grinding paper	P60
	92002387	25 Pcs.	Zirconia alumina grinding paper	P120
	92002388	25 Pcs.	Zirconia alumina grinding paper	P180



### FIXATION SYSTEM FOR SILICON GRINDING PAPERS WITHOUT ADHESIVE/FOIL BACKING

## **Qprep** Clamping Ring

The QPREP clamping ring is made of plastic and allows grinding papers without adhesive / foil backing to be attached directly to the working disc. This ensures very low resilience and minimizes edge rounding during the grinding process. For changing the grinding paper, the clamping ring must be re-attached each time.

Item No. Unit Description	
CLAMPING RING FOR GRINDING PAPERS	
Ø	
made from plastic	
05610228 1 Pc. 200 mm	
05610227 1 Pc. 230 mm	
05610226 1 Pc. 250 mm	
05610225 1 Pc. 300 mm	

#### FIXATION SYSTEM FOR SILICON GRINDING PAPERS WITHOUT ADHESIVE/FOIL BACKING

### **Gprep** Quick-Tap

The reusable fast and time saving fixation system for plain backed grinding paper. As an alternative to the clamping ring and adhesive film, the innovative QPREP Quick-Tap is ideally suited for fixing grinding paper without adhesive/foil backing. Designed to be reusable, the thin layer of our new innovative fixation system resists high shear forces and ensures that the plain backed paper adheres securely to the Quick-Tap. Like all new Galaxy products, the Quick-Tap features the Qprep Antislip backside for secure retention of the Qprep magnetic film.



### PRODUCT ADVANTAGES

- Optimized adhesion
- Low impact elasticity
- Reduction of pencil effect and edge rounding
- Possibility to position the specimen holder beyond the edge of the grinding paper during semi-automatic and automatic specimen preparation
- I Sustainable and resource-saving compared to using grinding paper with adhesive/foil backing
- I Allows hundreds of paper changes

### **RECOMMENDED APPLICATIONS**

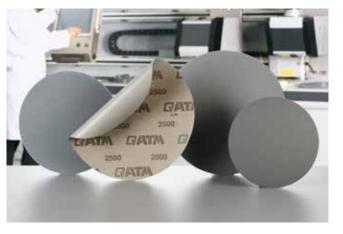
- I For use with grinding paper without adhesive/foil backing
- I Quick and easy as well as repeated fixation of grinding paper
- For direct attachment to magnetic foil

ltem No.	Unit	Description
		QUICK-TAP
		Ø
		GALAXY Quick-Tap (for using with magnetic foil)
95017484	1 Pc.	250 mm
95017485	1 Pc.	300 mm



## **Qprep** Silicon carbide grinding papers without adhesive/foil backing

QPREP silicon carbide grinding papers without adhesive/foil backing can be used individually and are ideally suited for a wide range of varied materials. They offer a high degree of flexibility, especially for frequently changing material variants. The grinding paper without adhesive/foil backing can be fixed directly with the QPREP Quick Tap (to the work disc or magnetic foil) or with the QPREP clamping ring to the work disc. Both ensure low resilience during the grinding process. QPREP silicon carbide grinding paper without adhesive/foil backing is available in diameters of 200 / 230 / 250 and 300 mm and in 15 different grain sizes.



#### PRODUCT ADVANTAGES

- I Directionally oriented applied abrasive grains with homogeneous distribution for a high cutting effect and efficient material removal
- Low resilience

#### **RECOMMENDED APPLICATIONS**

- All-purpose usage
- I Suitable for planar, pre- and fine grinding steps due to different grain sizes

n No. Un

Description

### SILICON CARBIDE GRINDING PAPERS WITHOUT ADHESIVE/FOIL BACKING

Grain FEPA standard

• Fixation system: Quick-Tap or clamping ring

		i Mation Systemi Ealon Tap of o	ianiping ing
		200 mm Ø	
92001810	100 Pcs.	SiC grinding paper, plain backed	P60
92001811	100 Pcs.	SiC grinding paper, plain backed	P80
92001812	100 Pcs.	SiC grinding paper, plain backed	P120
92001813	100 Pcs.	SiC grinding paper, plain backed	P180
92001814	100 Pcs.	SiC grinding paper, plain backed	P240
92001815	100 Pcs.	SiC grinding paper, plain backed	P320
92001816	100 Pcs.	SiC grinding paper, plain backed	P400
92001817	100 Pcs.	SiC grinding paper, plain backed	P500
92001818	100 Pcs.	SiC grinding paper, plain backed	P600
92001819	100 Pcs.	SiC grinding paper, plain backed	P800
92001820	100 Pcs.	SiC grinding paper, plain backed	P1000
92001821	100 Pcs.	SiC grinding paper, plain backed	P1200
92002634	100 Pcs.	SiC grinding paper, plain backed	2400*
92004557	100 Pcs.	SiC grinding paper, plain backed	P2500
92002640	100 Pcs.	SiC grinding paper, plain backed	4000*

\*slurry coated, for a finer surface finish



/

Item No.	Unit	Description	
		SILICON CARBIDE GRINDING PAPERS WITHOUT ADHESIVE/FOIL BACKING	
		Grain FEPA standard	
		Fixation system: Quick-Tap or clamping ring	
		230 mm Ø	
92001567	100 Pcs.	SiC grinding paper, plain backed P60	
92001568	100 Pcs.	SiC grinding paper, plain backed P80	
92001569	100 Pcs.	SiC grinding paper, plain backed P120	
92001570	100 Pcs.	SiC grinding paper, plain backed P180	
92001571	100 Pcs.	SiC grinding paper, plain backed P240	
92001572	100 Pcs.	SiC grinding paper, plain backed P320	
92001573	100 Pcs.	SiC grinding paper, plain backed P400	
92001574	100 Pcs.	SiC grinding paper, plain backed P500	
92001575	100 Pcs.	SiC grinding paper, plain backed P600	
92001576	100 Pcs.	SiC grinding paper, plain backed P800	
92001577	100 Pcs.	SiC grinding paper, plain backed P1000	
92001578	100 Pcs.	SiC grinding paper, plain backed P1200	
92002635	100 Pcs.	SiC grinding paper, plain backed 2400*	
92004558	100 Pcs.	SiC grinding paper, plain backed P2500	
92001579	100 Pcs.	SiC grinding paper, plain backed 4000*	
		*slurry coated, for a finer surface finish	
		250	
02001500	100 De-	250 mm Ø	
92001580	100 Pcs.	SiC grinding paper, plain backed P60	
92001581	100 Pcs.	SiC grinding paper, plain backed P80	
92001582	100 Pcs.	SiC grinding paper, plain backed P120	
92001583	100 Pcs.	SiC grinding paper, plain backed P180	
92002369	100 Pcs. 100 Pcs.	SiC grinding paper, plain backed P240	
92001585 92001586	100 Pcs. 100 Pcs.	SiC grinding paper, plain backed P320 SiC grinding paper, plain backed P400	
92001586	100 Pcs. 100 Pcs.	SiC grinding paper, plain backed P400 SiC grinding paper, plain backed P500	
92001587	100 Pcs. 100 Pcs.	Sic grinding paper, plain backed P500 Sic grinding paper, plain backed P600	
92001588	100 Pcs. 100 Pcs.	Sic grinding paper, plain backed P800 Sic grinding paper, plain backed P800	
92001589	100 Pcs. 100 Pcs.	Sic grinding paper, plain backed P800 Sic grinding paper, plain backed P1000	
92001590	100 Pcs. 100 Pcs.	Sic grinding paper, plain backed P1000 Sic grinding paper, plain backed P1200	
92001591	100 Pcs. 100 Pcs.	Sic grinding paper, plain backed 2400*	
92002636	100 Pcs.	Sic grinding paper, plain backed 2400 Sic grinding paper, plain backed P2500	
92004559	100 Pcs. 100 Pcs.	Sic grinding paper, plain backed 4000*	
52001552	100 - 03.	*slurry coated, for a finer surface finish	
00001507	100 5	300 mm Ø	
92001593	100 Pcs.	SiC grinding paper, plain backed P60	
92001594	100 Pcs.	SiC grinding paper, plain backed P80	
92001595	100 Pcs.	SiC grinding paper, plain backed P120	
92001596	100 Pcs.	SiC grinding paper, plain backed P180	
92001597	100 Pcs.	SiC grinding paper, plain backed P240	
92001598	100 Pcs.	SiC grinding paper, plain backed P320	
92001599	100 Pcs.	SiC grinding paper, plain backed P400	
92001600	100 Pcs.	SiC grinding paper, plain backed P500	
92001601	100 Pcs.	SiC grinding paper, plain backed P600	
92001602	100 Pcs.	SiC grinding paper, plain backed P800	
92001603	100 Pcs.	SiC grinding paper, plain backed P1000	
92001604	100 Pcs.	SiC grinding paper, plain backed P1200	
92002637	100 Pcs.	SiC grinding paper, plain backed 2400*	

SiC grinding paper, plain backed \*slurry coated, for a finer surface finish P2500

4000\*

SiC grinding paper, plain backed

92004560

92002154

100 Pcs.

100 Pcs.



## **Qprep** Grinding papers for Qpol 30

QPREP grinding papers for mobile grinding and polishing equipment are mainly used in mobile materialography rugged field conditions and are available as alumina grinding papers with a Velcro fastener on the back or as silicon carbide grinding papers with an adhesive backing. Both fasteners enable efficient changing of the sandpaper even under rugged field conditions.



#### PRODUCT ADVANTAGES

- I Targeted grinding of smallest areas without influencing surrounding sample areas
- I Easy change of grinding paper

#### **RECOMMENDED APPLICATIONS**

- Mobile component-materialography
- I Deburring samples of complex geometries

			PAPERS FOR MOBILE C QPOL 30	RINDER AND
		Ø Grai	FEPA standard	
		Corundum	rinding papers with hook-and	l-loop fastener backing
92004285	100 Pcs.	30 mm	P60	
92004286	100 Pcs.	30 mm	P180	
92004288	100 Pcs.	30 mm	P240	
92004287	100 Pcs.	30 mm	P320	

				-
92004498	100 Pcs.	30 mm	P400	
92004499	100 Pcs.	30 mm	P600	
92004631	100 Pcs.	30 mm	P1000	

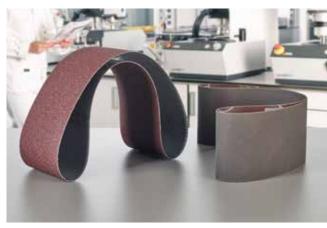
Self-adhesive polishing cloths: view chapter polishing

#### Notes



## **Qprep** Grinding belts for Qgrind 100

QPREP grinding belts can be used very well for manual pre-grinding and deburring. They are waterproof and very robust for wet grinding with the Qgrind 100.



#### **PRODUCT ADVANTAGES**

- Waterproof
- I High robustness
- I High stock removal

#### **RECOMMENDED APPLICATIONS**

- I Pre-grinding and deburring
- Preparations for macro etching for weld testing

ltem No.	Unit	Description	
		GRINDING B	ELTS FOR QGRIND 100
		Dimensions	Grain FEPA standard
		Aluminum oxid	e grinding belts, water resistant
92002528	5 Pcs.	100 x 920 mm	P80
92002529	5 Pcs.	100 x 920 mm	P120
92002530	5 Pcs.	100 x 920 mm	P180
92002531	5 Pcs.	100 x 920 mm	P240
92004505	5 Pcs.	100 x 920 mm	P320
		Silcon carbide g	grinding belts, water-resistant
92002664	5 Pcs.	100 x 915 mm	P80
92002665	5 Pcs.	100 x 915 mm	P120
92002666	5 Pcs.	100 x 915 mm	P180
92002667	5 Pcs.	100 x 915 mm	P240
92004613	5 Pcs.	100 x 915 mm	P320
92002394	5 Pcs.	100 x 915 mm	P400

#### Notes





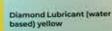
Diamond Lubricant (alcohol based) light blue

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sohol slue ssosava 3

Diamantschmiermittel (Wasserbasis) Gelb



10 I 95016174



11.10

Pamond suspension Ecohol based) poly 9 m

250 ml

GATA

Diamantsu Mono Iµm

Diamond S-Mono 1µm QATM QATM QATM QAT

MATA

Ly.

QATA QATA

GATA GA

GATA GATA

GATA



# Consumables for polishing



500 ml

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Diamantschmier mittel (Ölbasis) Rot



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CEFA! DAMS

Ionep Corsar



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Diamantsuspension Mono 6µm

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Jiamond Suspension Mono Jum

Poly 1um

Diamond Poly 1µm

250 ml

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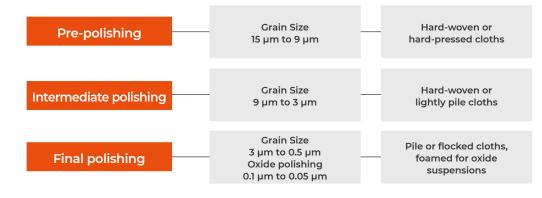
DATA M.





# Polishing

The polishing of the materialographic specimen serves, similar like grinding and after the grinding step, to remove the deformation introduced into the material. For this purpose, the unbound abrasive/grain is applied to special polishing cloths in gradually finer grain sizes. A distinction is made between three polishing processes with different polishing media:



A wide range of QPREP polishing media, lubricants and polishing cloths is available for this purpose.

# **Diamond Suspension**

QPREP diamond suspensions are the polishing product of choice for materialographic preparations. The range of different chemical bases (water, alcohol, or oil) allows scratch-free polishing, depending on the application.

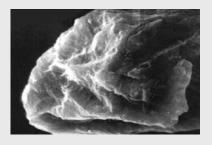
#### **QPREP** diamond suspensions are characterized by

- A narrow tolerance grain size distribution for a uniform scratch pattern. т
- The optimized diamond concentration for high removal rate and time-saving polishing.
- Suitable for use with all materials. Т

The abrasive used is (industrial) diamond, which is divided into monocrystalline and polycrystalline, since different levels of material removal rate are achieved.

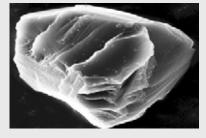
#### Polycrystalline (industrial) diamonds:

It consists of a multi-crystal, which breaks into smaller components when used, thus repeatedly creating new cutting edges (self-sharpening effect). This results in a high material removal rate and time-optimized polishing results.



#### Monocrystalline (industrial) diamonds:

It consists of a single crystal that breaks into small slices like a block when used. There is no self-sharpening effect as with polycrystalline diamonds. Due to this, a more material-friendly but also more time-consuming removal rate is achieved during polishing.



OPREP diamond suspensions are used in combination with a lubricant based on water, alcohol, or oil. The right mixing ratio between suspension and lubricant must be observed to achieve correct polishing results. Alternatively, QATM offers the QPREP DIA-Complete All-In-One diamond suspension. It contains the lubricant in an optimized ratio, which eliminates the need for manual dosing and mixing of suspension and lubricant.



## **Oprep** DIA-COMPLETE Poly

QPREP DIA-Complete Poly (polycrystalline) is an all-in-one diamond suspension that is used for a wide range of materials.



#### PRODUCT ADVANTAGES

- I High material removal rate
- Easy handling
- Optimally adjusted ratio of suspension and lubricant
- Process reliable and repeatable polishing results
- Water based (eco-friendly)
- Closely tolerated grain size

#### **RECOMMENDED APPLICATIONS**

- I All Material besides water-sensitiv materials
- Soft to hard materials
- I Manual as well as semi and fully automatic preparation

Item No.	Unit	Description
		DIA-COMPLETE POLY, ALL-IN-ONE DIAMOND SUSPENSION Grain Size
		Combined product of diamond suspension and lubricant
95011833	500 ml	0.25 µm
95011839	11	0.25 µm
95011845	2.5 l	0.25 µm
95016023	51	0.25 µm
95011834	500 ml	lμm
95011840	11	lμm
95011846	2.5	lμm
95015394	51	1 µm
95011835	500 ml	3 µm
95011841	11	3 µm
95011847	2.5	3 µm
95015395	51	3 µm
95011836	500 ml	6 µm
95011842	11	6 µm
95011848	2.5 l	6 µm
95015396	51	6 µm
95011837	500 ml	9 µm
95011843	11	9 µm
95011849	2.5 l	9 µm
95015397	51	9 µm
95011844	11	15 µm



## **Oprep** DIA-COMPLETE Mono

QPREP DIA-Complete Mono (monocrystalline) is an all-in-one diamond suspension that is used for a wide range of materials.



#### PRODUCT ADVANTAGES

- I Gentle material removal rate
- I Easy handling
- I Optimally adjusted ratio of suspension and lubricant
- Process reliable and repeatable polishing results
- Water based (eco-friendly)
- I Closely tolerated grain size

#### **RECOMMENDED APPLICATIONS**

- All Material besides water-sensitiv materials
- I Soft to hard materials
- I Manual as well as semi and fully automatic preparation

Item No.	Unit	Description
		DIA-COMPLETE MONO, ALL-IN-ONE DIAMOND SUSPENSION
		Grain Size
		Combined product of diamond suspension and lubricant
95011815	500 ml	lμm
95011820	11	lμm
95011825	2.5 l	lμm
95015404	51	lμm
95011816	500 ml	3 µm
95011821	11	3 µm
95011826	2.5 l	3 µm
95015405	51	3 µm
95011817	500 ml	6 µm
95011822	11	6 µm
95011827	2.5 l	6 µm
95015406	51	6 µm
95011818	500 ml	9 µm
95011823	11	9 µm
95011828	2.5 l	9 µm
95015407	51	9 µm



## *Oprep* Diamond suspension polycrystalline

QPREP diamond suspensions are characterized by the narrow tolerance grain size as well as the optimized concentration of polycrystalline diamonds.



#### PRODUCT ADVANTAGES

- I High material removal rate
- Water based (eco-friendly)
- I Closely tolerated grain size

#### **RECOMMENDED APPLICATIONS**

- All Material besides water-sensitiv materials
- Soft to hard materials
- I For manual fine dosing with lubricant

ltem No.	Unit	Description
		DIAMOND SUSPENSION POLYCRYSTALLINE
		Grain Size
92002353	250 ml	lμm
95016017	500 ml	lμm
92004798	11	1 µm
95002761	2.5 l	lμm
95014519	51	lμm
92002354	250 ml	3 µm
95016018	500 ml	3 µm
92004799	11	3 µm
95002762	2.5 l	3 µm
95014520	51	3 µm
92002355	250 ml	6 µm
95016019	500 ml	6 µm
92004800	11	6 µm
95002763	2.5	6 µm
95014521	51	6 µm
92002356	250 ml	9 µm
95016020	500 ml	9 µm
92004801	11	9 µm
95002764	2.5	9 µm
95014522	51	9 µm
95005738	11	15 µm

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## **Qprep** Diamond suspension monocrystalline

QPREP diamond suspensions are characterized by the narrow tolerance grain size as well as the optimized concentration of monocrystalline diamonds.



#### **PRODUCT ADVANTAGES**

- I Gentle material removal rate
- I Water based (eco-friendly)
- I Closely tolerated grain size

#### **RECOMMENDED APPLICATIONS**

- I All Material besides water-sensitiv materials
- I Soft to hard materials
- For manual fine dosing with lubricant

				DIAMOND SUSPENSION MONOCRYSTALLINE
				Grain Size
Color code		92002346	250 ml	lμm
diamond su monocrysta	uspension	95016012	500 ml	lμm
		92004791	11	lμm
Grain Size µm	Color	95002755	2.5	lμm
	Dive	95014514	51	lμm
1μm	Blue			
3 µm	Green	92002347	250 ml	3 µm
6 µm	Yellow	95016013	500 ml	3 µm
9 µm	Red	92004792	11	3 µm
		95002756	2.5	3 µm
		95014515	51	3 µm
		92002348	250 ml	6 µm
		95016014	500 ml	6 µm
		92004793	11	6 µm
		95002757	2.5 l	6 µm
		95014516	51	6 µm
		92002349	250 ml	9 µm
		95016015	500 ml	9 µm
		92004794	11	9 µm
		95002758	2.5 l	9 µm
		95014517	51	9 µm



## *Oprep* Diamond suspension (alcohol-based / oil-based)

For polishing water-sensitive materials, QPREP diamond suspensions based on alcohol or oil are used. These have the same excellent polishing properties as the other diamond suspensions.



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#### **PRODUCT ADVANTAGES**

- Anticorrosive
- I High lubricity with ductile materials
- I Closely tolerated grain size

#### **RECOMMENDED APPLICATIONS**

- I All materials especially materials prone to corrosion
- Soft to hard materials
- I For manual fine dosing with lubricant

ltem No.	Unit	Description
		DIAMOND SUSPENSION (ALCOHOL-BASED) POLYCRYSTALLINE
		Grain Size
95003494	11	lμm
95003495	11	3 µm
95003496	11	6 µm
95003497	11	9 µm
95007978	11	15 µm
		DIAMOND SUSPENSION (ALCOHOL-BASED) MONOCRYSTALLINE
		Grain Size
95003490	11	lμm
95003491	11	3 µm
95003492	11	6 µm
95003493	11	9 µm
		DIAMOND SUSPENSION (OIL-BASED)
		POLYCRYSTALLINE
		Grain Size
95002792	11	lμm
95002793	11	3 µm
95002794	11	6 µm

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9 µm



## *Rprep* Spray nozzle

The QPREP Spray nozzle is suited for optimum fine dispersion of suspension and lubricant on the polishing cloth during manual polishing.

¥	ltem No.	Unit	Description
			SPRAY NOZZLE
			Description
ALC: L			<ul> <li>for diamond suspensions of all grain sizes</li> <li>for 250 ml, 500 ml and 1 L bottles</li> </ul>
	95016723	1 Pc.	Spray nozzle, hose length approx. 160 mm

## **Qprep** Qdoser ONE dosing system for suspensions

The Qdoser ONE dosing system is an easy-to-use solution for manual or semi-automatic polishing processes. QATM's standard suspension and lubricant bottles can be quickly screwed on the dosing attachment. The dosing volume is closely and continuously controlled with an adjusting screw. The system can be applied with the Qdoser ONE holder to the polishing heads Qpol GO and ECO. If used with manual grinding/polishing machines, the Qdoser ONE stand with suction cups can be placed on the machines.

#### PRODUCT ADVANTAGES

- I Dosing attachment for standard and suspension bottles
- I Adjustable dosing volume
- I Can be freely positioned with stand
- Can be screwed to polishing heads Qpol GO and ECO



ltem No.	Unit	Description
		QDOSER ONE DOSING SYSTEM FOR SUSPENSIONS
		Description
Z5631015	1 Pc.	Qdoser ONE basic module
Z5631014	1 Pc.	Qdoser ONE holder
Z5631016	1 Pc.	Qdoser ONE stand

## **Gprep** Diamond spray, paste and stick

As an alternative to the diamond suspension as a polishing product, QATM also offers QPREP diamond spray, paste and stick. These are particularly well suited for commissioning new polishing cloths. When using these, make sure that the QPREP lubricants are also used.



#### PRODUCT ADVANTAGES

- I Diamonds attach better to the polishing cloth due to non-liquid carrier medium
- I Closely tolerated grain size
- I High stock removal rate

#### **RECOMMENDED APPLICATIONS**

I Commissioning of new polishing cloths for higher percentage of bonded diamonds on the polishing cloth

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Item No.	Unit	Description
		DIAMOND SPRAY POLYCRYSTALLINE
		Grain Size
		CFC-free
95016244	200 ml	0.25 µm
95016025	200 ml	lμm
95016026	200 ml	3 µm
95016027	200 ml	6 µm
95016028	200 ml	9 µm
95016245	200 ml	15 µm

		DIAMOND PASTE POLYCRYSTALLINE
		Grain Size
		10 g syringe
92002340	10 g	lμm
92002341	10 g	3 µm
92002342	10 g	6 µm
92002343	10 g	9 µm
92002344	10 g	15 µm

		DIAMOND PASTE MONOCRYSTALLINE
		Grain Size
		10 g syringe
92002365	10 g	0.25 µm
92002333	10 g	lμm
92002316	10 g	3 µm
92002335	10 g	6 µm
92002336	10 g	9 µm
92002337	10 g	15 μm

		DIAMOND STICK MONOCRYSTALLINE
		Grain Size
		<ul><li>diamond wax</li><li>to be used with lubricant</li></ul>
95015386	10 g	lμm
95015387	10 g	3 µm
95015388	10 g	6 µm
95015389	10 g	9 µm



## **Gprep** Diamond lubricants

QPREP lubricants (diamond lubricants) based on water, alcohol and oil are used with the polishing products mentioned above. The lubricant ensures even distribution of the polishing product on the polishing cloth. In addition, it also serves to cool the cloth and sample while polishing.



**QPREP diamond lubricant yellow** (water-based) is especially environmentally friendly and provides an even lubricating film on the polishing cloth.

**QPREP diamond lubricant blue** (alcohol-based) has a higher viscosity and surface tension. Due to this, the lubricant remains longer on the polishing cloth. This allows a more economical dosage.

**QPREP diamond lubricant light blue** (alcohol-based) has a low viscosity and surface tension due to its high alcohol content. This makes it especially suitable for materials which are prone to corrosion. However, the lubricant must be dosed more frequently due to the low viscosity.

**QPREP Diamond Lubricant Red** (oil based) is an oil - water emulsion and due to its higher viscosity ensures a consistently stable lubricating film on the polishing cloth. Optimal for heat as well as water sensitive materials.

ltem No.	Unit	Description
		DIAMOND LUBRICANT
		Color Characteristics
		<ul> <li>for manual dosing with diamond suspension</li> </ul>
92005509	11	Yellow - water-based - ecologically friendly
92004925	2.5 l	Yellow - water-based - ecologically friendly
92005510	51	Yellow - water-based - ecologically friendly
95016174	10 l	Yellow - water-based - ecologically friendly
95000901	11	Blue - alcohol-based - for water-free preparation
95000911	2.5	Blue - alcohol-based - for water-free preparation
95001194	51	Blue - alcohol-based - for water-free preparation
95015391	11	Light blue - alcohol-based - for water-free preparation
95015392	51	Light blue - alcohol-based - for water-free preparation
95015393	10 I	Light blue - alcohol-based - for water-free preparation
95001759	11	Red - oil-based - for water-free preparation
95001772	2.5	Red - oil-based - for water-free preparation
95001784	51	Red - oil-based - for water-free preparation

		DIAMOND LUBRICATION CONCENTRATE
		Color Characteristics
		<ul> <li>for manual dosing with diamond suspension</li> </ul>
95016362	11	Blue - for alcohol-based lubricant - for 10 L lubricant, mix with 9 parts of ethanol
		ETHANOL
		<ul> <li>individually applicable for intensive cleaning</li> </ul>
95004662	11	Ethanol, 99% denatured
95004663	51	Ethanol, 99% denatured
95004664	10 I	Ethanol, 99% denatured

QATM price list 2023/E · valid as of December 1, 2022 · all prices FCA Mammelzen · General Terms and Conditions: www.qatm.com/terms ATM Qness GmbH · Emil-Reinert-Str. 2 · 57636 Mammelzen · Germany Phone: +49 2681 9539-0 · Fax: +49 2681 9539-20 · E-Mail: info@qatm.com · www.qatm.com



## *Qprep* Fine polishing suspensions

QPREP fine polishing suspensions are the polishing products of choice for the most demanding polishing requirements. This involves chemical mechanical polishing using silicon dioxide or aluminum oxide.



#### PRODUCT ADVANTAGES

- I Highest surface qualities
- I Removal of all deformation with vibration polishing
- I Polishing/removing scratches in the range of 0.1µm to 0.05µm

#### **RECOMMENDED APPLICATIONS**

- I Detailed microstructure analysis
- I Very soft or very hard and ductile materials

Item No.	Unit	Description			
		FINE POLISH	IING SUSP	ENSIONS	
		Description	ph-value	Grain Size	
		Fine polishing s • does not crys • for ferrous ma minerals	tallize	2 32	osites, PCB, rocks and
92002534	11	Eposal	pH≈8.0	0.06 µm	
		Colloidal silica • for polishing, • for ferrous an • especially for	d non-ferrou	us materials,	
92002536	11	Eposil F	pH≈9.5	0.1 µm	
95013858	11	Eposil Non Dry	pH≈9.5	0.05 µm	(does not crystallize)
95013958	10 I	Eposil Non Dry	pH≈9.5	0.05 µm	(does not crystallize)
92002541	1 kg	Eposil M	pH≈9.5	0.06 µm	
		Colloidal silica • for titanium, r	nickel, tin ar	nd its alloys	
95001206	1 kg	Eposil M11	pH≈11.0	0.06 µm	
		Water-free fine • e.g. for magne		uspension	
95005033	1 kg	Etosil E	pH≈7.0	0.06 µm	
		ALUMINA SU	ISPENSIO	N, CALCIN	ATED
		Description		Grain Size	e
		Aqueous conce	ntrate, to di	lute, 3-5 par	t of dest. water
92002533	11	Alumina suspen	ision	0.3 µm	
92002532	11	Alumina suspen	ision	0.6 µm	
92004950	11	Alumina suspen	ision	1μm	



# Polishing cloths

The choice of the right polishing cloth is essential for a low-deformation and relief-free polish. The cloth material (silk, artificial silk, man-made fibers, wool fabric, felt, flocked or foamed synthetic fabrics) and the corresponding resilience are a crucial criterion in the selection of the polishing cloth. The possible fixation systems (GALAXY metal disc with magnetic foil or X-Tap) also differ.

At the beginning, **pre-polishing**, polishing cloths with a low resilience (hard cloth material) are selected, as these support the retention of edge sharpness. In comparison to the further polishing steps, a higher material removal is achieved during pre-polishing due to longer polishing times.

Polishing cloths with different resilience are used for **intermediate polishing**. The objective of the polish and the material to be polished are always the determining factors for the selection of a suitable polishing cloth.

**Final polishing** is performed on polishing cloths with a high resilience with short polishing times to avoid relief formation. Final polishing can either be done with diamond suspensions ( $3 \mu m - 0.5 \mu m$ ) or, for the highest demands for analysis, by using fine polishing suspensions (oxide polish 0.1  $\mu m - 0.05 \mu m$ ) or (alumina 1  $\mu m - 0.3 \mu m$ ).

The selection of QPREP polishing cloths offers a suitable cloth for every polishing step, which, with the matching QPREP diamond suspension, ensures excellent polishing results.





#### FIXATION SYSTEM FOR GALAXY POLISHING CLOTHS

## **Gprep** Magnetic foil for GALAXY polishing cloths

For low resilience during (grinding) / polishing as well as best adhesion and easy handling of the QPREP GALAXY (grinding discs) / polishing cloths, the QPREP magnetic foil is perfectly suited.



#### PRODUCT ADVANTAGES

- Low resilience
- I One time application on the working disc of the machine
- Long service life
- I Different magnet. field strengths

#### **RECOMMENDED APPLICATIONS**

- I For the use of all GALAXY grinding discs and polishing cloths
- Frequent change of grinding discs and polishing cloths

ltem No.	Unit	Descriptio	n
		MAGNE	TIC FOIL, SELF-ADHESIVE
			thickness
			foil, normal adhesion on working wheel
92008528	1 Pc.	200 mm	1 mm
92005820	1 Pc.	250 mm	1 mm
92005822	1 Pc.	300 mm	1 mm
95014137	1 Pc.	350 mm	1 mm
05016775	1.D-		on working wheel
		<ul> <li>to apply</li> </ul>	on working wheel
95016345	1 Pc.	200 mm	1 mm
95016346	1 Pc.	250 mm	1 mm
95012161	1 Pc.	300 mm	1 mm
95014137	1 Pc.	350 mm	1 mm
		<ul> <li>to apply</li> </ul>	foil, strongest adhesion on working wheel d magnetic adhesion by higher material thickness
95016298	1 Pc.	200 mm	2 mm
95016300	1 Pc.	250 mm	2 mm
95016301	1 Pc.	300 mm	2 mm







## **GALAXY** polishing cloths

QPREP GALAXY polishing cloths offer the right cloth material for all materials and analysis purposes. Low resilience is provided by our GALAXY carrier disc.



#### **PRODUCT ADVANTAGES**

- I Faster application because there is no need to glue on the polishing cloth
- I Low resilience due to metallic carrier plate
- I Easier handling due to grip tabs on the carrier plate

#### **RECOMMENDED APPLICATIONS**

- Process-reliable and reproducible polishing results
- I Use with GALAXY magnetic foil

	ltem No.	Unit	Descriptio	n
			GALAXY	POLISHING CLOTH WITH METAL BACK
			Descriptio	on Ø
			<ul> <li>Very har</li> <li>For cera</li> <li>High life</li> <li>For use</li> </ul>	ALPHA for pre-polishing rd, perforated chemical fiber cloth mics, hard metal, steel, grey cast iron, aluminum etime and stock removal with diamond grain size: 15/9 μm system: Magnetic foil
	95001407	5 Pcs.	Alpha	200 mm
	95001408	5 Pcs.	Alpha	250 mm
	95001409	5 Pcs.	Alpha	300 mm
	95013994	5 Pcs.	Alpha	350 mm
	95001410	5 Pcs.	Fixation     Beta	system: Magnetic foil 200 mm
	95001411	5 Pcs.	Beta	250 mm
and the second second	95001412	5 Pcs.	Beta	300 mm
	95013995	5 Pcs.	Beta	350 mm
			<ul> <li>Medium</li> <li>C-steels, aluminu</li> <li>For use</li> </ul>	for pre- & intermediate polishing hard silk cloth , precious metal, plastics [CFK, GFK], coatings,
	95001413	5 Pcs.	<ul> <li>Suitable</li> <li>Medium</li> <li>C-steels aluminu</li> <li>For use</li> </ul>	for pre- & intermediate polishing hard silk cloth , precious metal, plastics [CFK, GFK], coatings, m with diamond grain size: 9/6/3 µm
	95001413 95001414	5 Pcs. 5 Pcs.	<ul> <li>Suitable</li> <li>Medium</li> <li>C-steels, aluminu</li> <li>For use</li> <li>Fixation</li> </ul>	for pre- & intermediate polishing hard silk cloth , precious metal, plastics [CFK, GFK], coatings, m with diamond grain size: 9/6/3 µm system: Magnetic foil
			Suitable     Medium     C-steels     aluminu     For use     Fixation	for pre- & intermediate polishing hard silk cloth precious metal, plastics [CFK, GFK], coatings, m with diamond grain size: 9/6/3 µm system: Magnetic foil 200 mm



	Item No.	Unit	Descripti	on
			GALAX	Y POLISHING CLOTH WITH METAL BACK
			Descript	
			GALAXY	
			<ul> <li>Suitab</li> </ul>	le for pre-, intermediate-, and end polishing
				m hard chemical fiber cloth n, non – ferrous metals, minerals, ceramics, composite
			materi	als
				e with diamond grain size: 9/6/3/1 μm n system: Magnetic foil
	05010770	5 Dee		
A DESCRIPTION OF THE OWNER OF THE	95012739	5 Pcs.	Phi	200 mm
The Avenue of the	95012740	5 Pcs.	Phi	250 mm
1. Sec. 36 107 119 2	95012741	5 Pcs.	Phi	300 mm
	95014002	5 Pcs.	Phi	350 mm
			<ul> <li>Suitable</li> <li>Soft we</li> <li>For all</li> <li>For use</li> </ul>	– SIGMA le for intermediate and end polishing ool cloth materials e with diamond grain size: 6/3/1 μm n system: Magnetic foil
	95001416	5 Pcs.	Sigma	200 mm
	95001417	5 Pcs.	Sigma	250 mm
	95001418	5 Pcs.	Sigma	300 mm
	95013997	5 Pcs.	Sigma	350 mm
			<ul> <li>Short f</li> <li>For all</li> <li>For use</li> </ul>	le for end polishing flocked, medium hard synthetic cloth materials of medium and high hardness e with diamond grain size: 3/1 µm n system: Magnetic foil
	95016832	5 Pcs.	Eta	200 mm
	95016833	5 Pcs.	Eta	250 mm
	95016834	5 Pcs.	Eta	300 mm
	95016835	5 Pcs.	Eta	350 mm
			polishi • Short f • For all • For use • Suitab	– IOTA le for end polishing as well as fine polishing with fine ng suspension locked, soft synthetic cloth materials, especially hard materials e with diamond grain size: 3/1 μm le for oxide suspensions n system: Magnetic foil
	95001419	5 Pcs.	lota	200 mm
	95001420	5 Pcs.	lota	250 mm
	95001421	5 Pcs.	lota	300 mm
	95013998	5 Pcs.	lota	350 mm
			polishi • Short f • For all • For use • Suitab	– ZETA le for end polishing as well as fine polishing with fine ng suspension locked, soft synthetic cloth materials e with diamond grain size: 3/1 μm le for oxide suspensions as well as alumina n system: Magnetic foil
	05005995			· ·
	95005776	5 Pcs.	Zeta	200 mm
	95005777	5 Pcs.	Zeta	250 mm
	95005778	5 Pcs.	Zeta	300 mm

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95013999

5 Pcs.

Zeta

350 mm



92

ltem No.	Unit	Description
		GALAXY POLISHING CLOTH WITH METAL BACK
		Description Ø
		GALAXY – OMEGA • Suitable for fine polishing with fine polishing suspension • Soft synthetic cloth (chemical resistant) • For all materials • Suitable for oxide suspensions • Fixation system: Magnetic foil
95005779	5 Pcs.	Omega 200 mm
95005780	5 Pcs.	Omega 250 mm
95005781	5 Pcs.	Omega 300 mm
95014000	5 Pcs.	Omega 350 mm
		GALAXY – LAMBDA • Suitable for fine polishing with fine polishing suspension • Brushed, structured synthetic cloth (chemical resistant) • For all materials • Suitable for oxide suspensions as well as alumina • Fixation system: Magnetic foil
95005782	5 Pcs.	Lambda 200 mm
95005783	5 Pcs.	Lambda 250 mm
	95005779 95005780 95014000 95014000	95005779 5 Pcs. 95005780 5 Pcs. 95005781 5 Pcs. 95014000 5 Pcs. 95014000 5 Pcs.

Lambda 300 mm

Lambda 350 mm

95005784

95014001

5 Pcs.

5 Pcs.

#### Notes



#### FIXATION SYSTEM FOR SELF-ADHESIVE POLISHING CLOTHS

### **Дргер** Х-Тар

The QPREP X-Tap is ideally suited for fast and residue-free attachment of self-adhesive grinding papers and polishing cloths. This special attachment system offers minimal impact elasticity and can be applied either directly to the work disc or as QPREP GALAXY X-Tap with metal backing plate to the QPREP magnetic foil.



#### **PRODUCT ADVANTAGES**

- I Quick change of self-adhesive grinding paper or self-adhesive polishing cloths without adhesive residues
- Low resilience, due to the thin and solid structure of the QPREP X-Tap
- Easier cleaning compared to adhesive carrier disc

#### **RECOMMENDED APPLICATIONS**

- Preparations with high edge sharpness
- I Carrier plate for self-adhesive grinding paper and self-adhesive polishing cloths

Item No.	Unit	Description
		Х-ТАР
		Ø
		X-Tap (self-adhesive to stick on the working wheel)
95017015	1 Pc.	200 mm
95017016	1 Pc.	250 mm
95017017	1 Pc.	300 mm
95017018	1 Pc.	350 mm
		GALAXY-X-Tap (for using with magnetic foil)
95017019	1 Pc.	200 mm
95017020	1 Pc.	250 mm
95017021	1 Pc.	300 mm
95017022	1 Pc.	350 mm







## **Qprep** Polishing cloths, self-adhesive

QPREP polishing cloths offer the right cloth material for all materials and analysis purposes.



#### PRODUCT ADVANTAGES

- I Ideal for polishing in combination with the media carrier for the fully automatic Qpol 250 BOT as well as with the X-Tap system
- I Optimized adhesive backing ensures uniform fixing over the entire surface on the fixation system and realized no slipping or detachment of the polishing cloth

#### **RECOMMENDED APPLICATIONS**

- I For use with X-Tap system
- I For use with media carrier plate (Qpol 250 BOT)

ltem No.	Unit	Description
		POLISHING CLOTHS, SELF-ADHESIVE
		Description Ø
		ALPHA – Polishing cloth • Suitable for pre-polishing • Very hard, perforated chemical fiber cloth • For ceramics, hard metal, steel, grey cast iron, aluminum • High lifetime and stock removal • For use with diamond grain size: 15/9 μm • Fixation system: X-Tap
 92002555	5 Pcs.	Alpha 200 mm
 92002564	5 Pcs.	Alpha 250 mm
 92002573	5 Pcs.	Alpha 300 mm
 95016029	5 Pcs.	Alpha 350 mm
		ceramics • For use with diamond grain size: 15/9/6 μm • Fixation system: X-Tap
95006571	5 Pcs.	Beta 200 mm
95006572	5 Pcs.	Beta 250 mm
95006573	5 Pcs.	Beta 300 mm
95016030	5 Pcs.	Beta 350 mm
		<ul> <li>DELTA – Polishing cloth</li> <li>Suitable for pre- &amp; intermediate polishing</li> <li>Medium hard silk cloth</li> <li>C-steels, precious metal, plastics [CFK, GFK], coatings, aluminum</li> <li>For use with diamond grain size: 9/6/3 µm</li> <li>Fixation system: X-Tap</li> </ul>
92008801	5 Pcs.	Delta 200 mm
92008802	5 Pcs.	Delta 250 mm
92008803	5 Pcs.	Delta 300 mm
95016034	5 Pcs.	Delta 350 mm



	ltem No.	Unit	Descriptio	on
			POLISH	ING CLOTHS, SELF-ADHESIVE
			Descripti	
				- Polishing cloth
				e for pre- & intermediate polishing
				n hard silk cloth 5, precious metal, coatings, plastics [CFK, GFK],
			<ul> <li>For use</li> </ul>	with diamond grain size: 9/6/3 µm
100 March 100 Ma				n system: X-Tap
	92002558	5 Pcs.	Gamma	200 mm
	92002567	5 Pcs.	Gamma	250 mm
	92002576	5 Pcs.	Gamma	300 mm
	95016032	5 Pcs.	Gamma	350 mm
			<ul> <li>Suitable</li> <li>Mediun</li> <li>For iror</li> <li>materia</li> <li>For use</li> </ul>	ishing cloth e for pre-, intermediate-, and end polishing n hard chemical fiber cloth n, non – ferrous metals, minerals, ceramics, composite Ils with diamond grain size: 9/6/3/1 μm n system: X-Tap
	92005678	5 Pcs.	Phi	200 mm
and the work of a	92005679	5 Pcs.	Phi	250 mm
	92005680	5 Pcs.	Phi	300 mm
1.2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	95016031	5 Pcs.	Phi	350 mm
		51 65.		
			<ul> <li>Soft wo</li> <li>For all r</li> <li>For use</li> </ul>	
	92008810	5 Pcs.	Sigma	200 mm
	92008811	5 Pcs.	Sigma	250 mm
	92008812	5 Pcs.	Sigma	300 mm
	95016033	5 Pcs.	Sigma	350 mm
			<ul> <li>Suitable</li> <li>Short fl</li> <li>For all r</li> <li>For use</li> </ul>	ishing cloth e for end polishing ocked, medium hard synthetic cloth materials of medium and high hardness with diamond grain size: 3/1 μm n system: X-Tap
	95016828	5 Pcs.	Eta	200 mm
	95016829	5 Pcs.	Eta	250 mm
	95016830	5 Pcs.	Eta	300 mm
	95016831	5 Pcs.	Eta	350 mm
			<ul> <li>Suitable polishir</li> <li>Short fl</li> <li>for all n</li> <li>For use</li> <li>Suitable</li> </ul>	blishing cloth e for end polishing as well as fine polishing with fine ng suspension ocked, soft synthetic cloth naterials, especially hard materials with diamond grain size: 3/1 µm e for oxide suspensions n system: X-Tap
	95002393	5 Pcs.	lota	200 mm
	95002393	5 Pcs.	lota	250 mm
W Sile and the light	95002394	5 Pcs.	lota	300 mm
the second s	55002555	0 1 05.	1010	

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lota

350 mm

95016036

5 Pcs.



<b>DOLISHING</b> - POLISHING CLOTHS		Item No.	Unit	Description POLISHING CLOTHS, SELF-ADHESIVE Description Ø ZETA – Polishing cloth • Suitable for end polishing as well as fine polishing with fine polishing suspension • Short flocked, soft synthetic cloth • for all materials • For use with diamond grain size: 3/1 µm • Suitable for oxide suspensions as well as alumina • Fixation system: X-Tap
ISH		92005681	5 Pcs.	Zeta 200 mm
10	ACCENTRATION OF A	92005683	5 Pcs.	Zeta 250 mm
		92005684	5 Pcs.	Zeta 300 mm
		95016037	5 Pcs.	Zeta 350 mm
Qprep				<ul> <li>KAPPA – Polishing cloth</li> <li>Suitable for fine polishing with fine polishing suspension</li> <li>Soft polishing felt</li> <li>For all materials</li> <li>Suitable for alumina</li> <li>Fixation system: X-Tap</li> </ul>
		92002563	5 Pcs.	Kappa 200 mm
		92002572	5 Pcs.	Kappa 250 mm
		92002581	5 Pcs.	Kappa 300 mm
		95016038	5 Pcs.	Kappa 350 mm
				OMEGA – Polishing cloth • Suitable for fine polishing with fine polishing suspension • Soft synthetic cloth (chemical resistant) • For all materials • Suitable for oxide suspensions

			e for oxide suspensions n system: X-Tap
92002562	5 Pcs.	Omega	200 mm
92002571	5 Pcs.	Omega	250 mm
92002580	5 Pcs.	Omega	300 mm
95016039	5 Pcs.	Omega	350 mm



		<ul> <li>Suitable</li> <li>Brushee</li> <li>For all r</li> <li>Suitable</li> </ul>	– Polishing cloth e for fine polishing with fine polishing suspension d, structured synthetic cloth (chemical resistant) naterials e for oxide suspensions as well as alumina n system: X-Tap
95003597	5 Pcs.	Lambda	200 mm
95003598	5 Pcs.	Lambda	250 mm
95003599	5 Pcs.	Lambda	300 mm
 95016040	5 Pcs.	Lambda	350 mm

all polishing cloths also available for Qpol 30 (Ø 30 mm)

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## *Rprep* Media carrier plate

During preparation using the Qpol 250 BOT, the grinding wheels/papers and polishing cloths are placed on a media carrier plate specially designed for the machine.



#### PRODUCT ADVANTAGES

- I Quick exchange/selection of grinding papers / polishing cloths possible due to up to 16 stored media carrier plates
- I Secure fixing of the media carrier plate by means of vacuum suction (Vakujet)

#### **RECOMMENDED APPLICATIONS**

I Fully automatic preparation using Qpol 250 BOT

ltem No.	Unit	Description
		MEDIA CARRIER PLATE
		Ø
		<ul> <li>for grinding and polishing robot Qpol 250 BOT (SAPHIR X-Change)</li> </ul>
95005867	1 Pc.	250 mm

## *Rprep* Filter inserts

During grinding and polishing, various fine residual materials are produced. These originate from the sample (chips), the grinding wheel (wear/abrasion) as well as parts of the polishing media. To avoid entering of the wastewater system and the pumps these residuals have to be filtered. Suitable filter fleeces with the correct mesh sizes in the sedimentation tank prevents damage to the machines and ensure a safe process.

ltem No.	Unit	Description		
		FILTER INSER	ITS	
			Dimensions	Mesh size
		Filter inserts for (until year of co		
95017310	5 Pcs.	Fleece	290 x 150 x 190 mm	40 µm
95017311	5 Pcs.	Fleece	290 x 150 x 190 mm	60 µm
		Filter inserts for (from year of co		
95017312	5 Pcs.	Fleece	250 x 200 x 155 mm	60 µm
95017313	5 Pcs.	Fleece	250 x 200 x 155 mm	100 µm



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#### DATA

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Atzmittel VisiPro-I

Etchant VisiPro-I

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Farbätzmittel nach Klemm I (Teil A)

Klemm I Etchant (Parl







# Consumables for etching and analyzing





## **Qprep** Etching



QATM offers a wide range of etchants for contrasting as well as for qualitative and quantitative analysis of microstructures. Different QPREP etchants are available for macro and micro etching as well as electrolytic etching.

ltem No.	Unit	Description
		ELECTROLYTES (CONSISTING OF TWO
		COMPONENTS; TOTAL VOLUME 1 LITRE)
		Description
		Electrolyte for stainless steel, aluminum, aluminum alloys and special materials • for electrolytic etching/polishing
92002680	1 Pc.	K1 - Part A, equals 1 litre in combination with Part B
92002980	1 Pc.	K1 - Part B (perchloric acid), equals 1 litre in combination with Part A
		Electrolyte for titanium
92003011	1 Pc.	TI - Part A, equals 1 litre in combination with Part B
92003012	1 Pc.	TI - Part B (perchloric acid), equals 1 litre in combination with Part A
		Electrolyte for grey iron
92003014	1 Pc.	FI - Part A, equals 1 litre in combination with Part B
92003015	1 Pc.	FI - Part B (perchloric acid), equals I litre in combination with Part A
		<ul> <li>Shipping of hazardous materials will be charged extra</li> <li>Download of Safety Data Sheets at www.gatm.com</li> </ul>
		· Download of Salety Data Sheets at www.qath.com
		ACCESSORIES FOR QETCH 100 M (KRISTALL 650)
		Description
		Electrolyte-bottle with screw top
05007055	10	
95003955	1 Pc.	Volume 1 litre
		Accessories set for Qetch 100 M (Kristall 650) in suitcase
Z6201001	1 Pc.	Suitcase (single-order No.): • 5 pcs V-ring (Order No.: 95003606) • 1 pc profile ring material, appr. 150 mm (Order No.: 06201052) • 1 pc flexible end piece for profile ring (Order No.: 06201051) • 1 pc tube cutter (Order No.: 95004030) • 10 pcs filter pads Ø 40.5 mm (Order No.: 95003985) • 1 pc dolphin clamp (Order No.: 82000374)



## 

ltem No.	Unit	Description
		ETCHANTS
		Description
		Ready-to-use etching solutions for microstructural contrasting
95014346	500 ml	VisiPro-I Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched and tempered steels and case-hardened steels)
95014347	11	VisiPro-I Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched and tempered steels and case-hardened steels)
95014348	500 ml	VisiPro-II Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched, tempered case hardening steels and anti-friction bearing steels)
95014349	11	VisiPro-II Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched, tempered case hardening steels and anti-friction bearing steels)
95006393	11	Barker reagent (for Aluminum grain boundaries)
92002601	1 kg	Heyn Etchant (for steel, phoshorous segregations, macro etching, copper alloys, brass)
95000508	500 ml	Copper A, chloride version (for Cu, Cu-alloys, brass and bronze)
92002602	1 kg	Adler Etchant (for steel, weldings, macro etching)
92002603	11	Alcoholic picric acid, 5% Picral (for steel, martensite)
92002597	11	Alcoholic nitric acid, 3% Nital (for unalloyed and low alloyed steels)
92002596	11	Alcoholic nitric acid, 1% Nital (for unalloyed and low alloyed steels)
92002605	1 kg	V2A Etchant (for austenitic steels), application with approx. $60^\circ$
92002606	250 g	Additive for V2A-etchant
92002678	1 kg	Sodium hydroxide solution (for aluminum alloys)
92004240	1 kg	Oberhoffer Etchant (for steel, segregations, flow-lines, macro/micro etching)
92004492	1 kg	Kroll Etchant (for aluminum alloys, titanium)
92004493	1 kg	Fry Etchant (for steel, macro/micro etching, flow lines)
92004222	1 kg	CU2 etching fluid (copper, copper with sulfide and oxide inclusions
92002750	1 kg	Sodium picrate (for cementite detection in steel)
95002313	11	Kalling 1 Etchant (for martensitic stainless steel)
95002347	1 kg	Kalling 2 Etchant (for nickel, nickel alloys, stainless steels, nickel- copper alloys)
95002434	11	Color etching according to Klemm I (for low carbon steels), stock solution
95002390	20 g	Potassium bisulfite for Klemm I
95002435	11	Color etching according to Klemm II (copper, solder joints), stock solution
95002391	50 g	Potassium bislufite for Klemm II
95002436	11	Bechet-Beaujard Etchant, prior austenite grain boundaries
95002408	1 kg	Murakami Etchant (for hard metals, molybdenum/molybdenum alloys, chromium alloys, tungsten and tungsten alloys)

**ETCHING AND ANALYZING** 

Qprep



ltem No.	Unit	Description
		ACCESSORIES FOR ETCHING
		Description
		Etching bowl, DURAN® glass with cover, heat-resistant
92002629	1 Pc.	Ø 60/H 40 mm
92002628	1 Pc.	Ø 80/H 50 mm
92002430	1 Pc.	Ø 100/H 60 mm
92002626	1 Pc.	Ø 150/H 80 mm
		Etching bowl, polyethylene (PE),
95012078	1 Pc.	Ø 90/H 40mm
95012079	1 Pc.	Ø 110/H 55mm
95012080	1 Pc.	Ø 110/H 75mm
		Etching bowl, polypropylene (PP), with screw coupling
95012081	1 Pc.	Ø 60/H 60mm
95012082	1 Pc.	Ø 115/H 70mm
		Crucible tong
92002431	1 Pc.	Crucible tong, stainless
95008097	1 Pc.	Crucible tong, stainless with insulated handle

## *Rprep* Analyzing



When analyzing samples, QPREP offers support for the correct analysis of samples via specialist literature, cleaning products, desiccator, personal protective equipment, and more equipment.

ltem No.	Unit	Description
		LAB ACCESSORIES AND EQUIPMENT
		Description
		Face protection shield according to DIN EN 166 1 3 - S complete protection of face, unlimited field of view, acids and bases, resistant, robust plastic material, shatterproof, scratch- resistant
95002951	1 Pc.	Face protection shield, according to DIN EN 166 1 3 - S
		Protective laboratory apron, made of PVC, with neck and side bonds, clean edges, without fabrics
95004848	1 Pc.	Protective laboratory apron, 900 x 1100 x 0.5 mm

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Item No.	Unit	Description
		Nitrile gloves (single use), conforms to EN 420, EN 374
95008893	100 Pcs.	Nitrile gloves, conforms to EN 420, EN 374, size M
95007658	100 Pcs.	Nitrile gloves, conforms to EN 420, EN 374, size L
95008208	90 Pcs.	Nitrile gloves, conforms to EN 420, EN 374, size XL
		Safety goggles conforms to EN 166, length-adjustable
92005963	1 Pc.	Safety goggles conforms to EN 166
		Mounting adhesive
92002779	100 g	Mounting adhesive 100 g, excellent bonding for metals and ceramics
		Cotton wool
92002630	200 g	Cotton wool
		Specimen cleaning wipes
92008773	100 Pcs.	Specimen cleaning wipes
		Sample protection laquer
92004428	300 ml	Sample protection laquer, spray (conservation of samples)
		Bottles
92008770	1 Pc.	Spray bottle, 250 ml
92002432	1 Pc.	Spray bottle, 500 ml
92004491	1 Pc.	Washing bottle with narrow neck, 500 ml
		Measuring cylinder
92004302	1 Pc.	Measuring cylinder, 50 ml
92004303	1 Pc.	Measuring cylinder, 100 ml
		Specimen drying unit
A5810355	1 Pc.	Specimen drying unit for set up on table
A5810419	1 Pc.	Specimen drying unit, with wall bracket



		CLEANING AGENTS FOR ULTRASONIC CLEANER
		Description
		<ul> <li>Cleaning concentrate, alkaline</li> <li>for universal use and intensive cleaning</li> <li>use 1 – 5%, pH 10 at 2%, removes oils, fats, silicon oil residues, pigments, ink and proteins</li> </ul>
92002614	11	Tickopur R 33
		CLEANING AIDS
		Description
		<ul> <li>individually applicable for intensive cleaning</li> </ul>
95004662	11	Ethanol, 99% denatured
95004663	51	Ethanol, 99% denatured
95004664	10 l	Ethanol, 99% denatured
92004510	11	Aceton, chemically pure, for degreasing of sample surfaces
		PANE CLEANING FOR FUME CUPBOARD
		Description
		Pane cleaning set in suitcase
Z7510002	1 Pc.	Pane wiper magnet     2x 30 pcs. cleaning cloths



Item No.	Unit	Description
		REPLICATION SET
		Description
		Replica system for non-destructive analyzing of microstructure quick cured 2 components compound for applying to surfaces; the cured replica can be removed easily and analysed directly
92006498	2x50 ml	2-components-compound
92006609	1 Pc.	Dosing gun
92008692	48 Pcs.	Mixing tube
		ASSEMBLY CLEANER
		Description
		for sample preparation, for replication set, in spray can
92004376	500 ml	Assembly cleaner spray
		PRECISION REPLICATION MATERIAL
		Description
		Replica system for surface structures (metallic or mineral), for surface roughness inspection (R, Ra)
95001664	900 ml	2-components-compound standard
95001665	900 ml	2-components-compound soft
		ACCESSORIES FOR MICROSCOPY
		Description
		Supporting accessories
92004109	1 kg	Plasticine
92002943	5 Pcs.	Microscope slides, metal, 76x26 mm
92004243	100 Pcs.	Microscope slides, glas, 32x24 mm
92004256	100 Pcs.	Microscope slides, glas, 40x24 mm
M1321000	1 Pc.	Specimen press • for parallel fixation of specimen on microscope slide • comfortable operation with minimal effort • compact, robust and durable • made of aluminum with anodised surface

#### STORAGE OF SAMPLES

Description Storage systems for readily prepared samples





Desiccator cabinet (95012025)



ltem No. L	Jnit	Description
		LITERATURE
		Description
		Expert Guide Materialography/Metallography, QATM Academy
95016686 1	Pc.	Expert Guide Materialography/Metallography
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#### Notes





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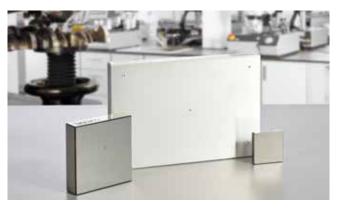
# Consumables for hardness testing





## Hardness test blocks

Calibrated and certified hardness test blocks are an important part of the hardness testing. QPREP hardness test blocks fulfill the requirements for testing according to following standards:





- DIN EN ISO 6506
- (Metallic materials; Brinell hardness test) DIN EN ISO 6507
- (Metallic materials; Vickers hardness test)
- I DIN EN ISO 6508 (Metallic materials; Rockwell hardness test)
- I DIN EN ISO 4545 (Metallic materials; Knoop hardness test)
- ASTM (E10, E18, E384).

These are essential for indirect calibration and periodic verification, as well as the results documentation.

#### ADVANTAGES

- I DAkkS calibration: according to current ISO and ASTM standards
- I Permissible measurement deviation engraved
- I Angular basic shape: optimal for automated periodic testing
- I Easy data insertion into the documentation template
- I Option: engraved grid lines
- I Option: multiple calibrations

#### DOCUMENTATION TEMPLATE

The documentation template supports in the periodic standard-compliance testing on hardness tester. Measurement accuracy is visualized to show the consistency of the measuring accuracy of the test method with the current standard. By using original QATM QPREP hardness test blocks, data could be called up online and the documentation template is filled automatically. A comprehensive range of statistical functions has also been built in. All results from the tests are clearly and logically documented and can be presented whenever there is an audit.

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# *Oprep* Hardness test blocks Brinell

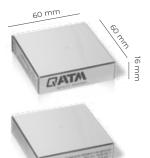
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150 mm				NESS TEST B N ISO 6506-3			
1001	10			HBW	Material	HW* Dim	ensions (mm
and the second	100 1	nn N					
1		16 mm					
GATM			HBW 10	/ 500			
	HB1005080A	1 Pc.	Brinell	HBW 10/500	Aluminum	HW approx. 80	150x100x16
		10-	HBW 10				150-100-10
	HB1010080A	1 Pc.	Brinell			HW approx. 80	150x100x16
	HB1010110A HB1010130A	1 Pc. 1 Pc.	Brinell Brinell			HW approx. 110 HW approx. 130	150x100x16
	HB1010170A	1 Pc.	Brinell			HW approx. 130	150x100x16
	HB1010200A	1 Pc.	Brinell	HBW 10/1000		HW approx. 200	
			HBW 10	/ 1500			
	HB1015080A	1 Pc.	Brinell	HBW 10/1500	Aluminum	HW approx. 80	150x100x1
	HB1015110A	1 Pc.	Brinell			HW approx. 110	150x100x1
	HB1015130A	1 Pc.	Brinell			HW approx. 130	150x100x1
	HB1015170A	1 Pc.	Brinell		Aluminum	HW approx. 170	150x100x10
	HB1015200A	1 Pc.	Brinell	HBW 10/1500	Steel	HW approx. 200	
	HB1015250A	1 Pc.	Brinell	HBW 10/1500	Steel	HW approx. 250	
	HB1015300A	1 Pc.	Brinell	HBW 10/1500	Steel	HW approx. 300	) 150x100x10
			HBW 10	/ 3000			
	HB1030110A	1 Pc.	Brinell	HBW 10/3000	Aluminum	HW approx. 110	150x100x10
	HB1030130A	1 Pc.	Brinell	HBW 10/3000	Aluminum	HW approx. 130	150x100x16
	HB1030170A	1 Pc.	Brinell	HBW 10/3000	Aluminum	HW approx. 170	150x100x10
	HB1030200A	1 Pc.	Brinell	HBW 10/3000	Steel	HW approx. 200	) 150x100x10
	HB1030250A	1 Pc.	Brinell	HBW 10/3000		HW approx. 250	150x100x10
	HB1030300A	1 Pc.	Brinell	HBW 10/3000		HW approx. 300	) 150x100x10
	HB1030350A	1 Pc.	Brinell	HBW 10/3000		HW approx. 350	
	HB1030400A	1 Pc.	Brinell	HBW 10/3000		HW approx. 400	
	HB1030450A	1 Pc.	Brinell	HBW 10/3000		HW approx. 450	
	HB1030500A	1 Pc.	Brinell	HBW 10/3000		HW approx. 500	
	HB1030550A	1 Pc.	Brinell	HBW 10/3000		HW approx. 550	
	HB1030600A	1 Pc.	Brinell	HBW 10/3000		HW approx. 600	
	HB1030650A	1 Pc.	Brinell	HBW 10/3000	Steel	HW approx. 650	150x100x16
			HBW 5/	125			
	HB0505080A	1 Pc.	Brinell	HBW 5/125	Aluminum	HW approx. 80	150x100x16



Item No.	Unit	Descript	Description				
			NESS TEST B N ISO 6506-3				
			HBW	Material	HW* Dime	nsions (mm)	
		HBW 5/	250				
HB0510080A	1 Pc.	Brinell	HBW 5/250	Aluminum	HW approx. 80	150x100x16	
HB0510110A	1 Pc.	Brinell	HBW 5/250	Aluminum	HW approx. 110	150x100x16	
HB0510130A	1 Pc.	Brinell	HBW 5/250	Aluminum	HW approx. 130	150x100x16	
HB0510170A	1 Pc.	Brinell	HBW 5/250	Aluminum	HW approx. 170	150x100x16	
HB0510200A	1 Pc.	Brinell	HBW 5/250	Steel	HW approx. 200	150x100x16	
		HBW 5 / 750					
HB0530110A	1 Pc.	Brinell	HBW 5/750	Aluminum	HW approx. 110	150x100x16	
HB0530130A	1 Pc.	Brinell	HBW 5/750	Aluminum	HW approx. 130	150x100x16	
HB0530170A	1 Pc.	Brinell	HBW 5/750	Aluminum	HW approx. 170	150x100x16	
HB0530200A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 200	150x100x16	
HB0530250A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 250	150x100x16	
HB0530300A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 300	150x100x16	
HB0530350A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 350	150x100x16	
HB0530400A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 400	150x100x16	
HB0530450A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 450	150x100x16	
HB0530500A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 500	150x100x16	
HB0530550A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 550	150x100x16	
HB0530600A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 600	150x100x16	
HB0530650A	1 Pc.	Brinell	HBW 5/750	Steel	HW approx. 650	150x100x16	

		HBW 2.5	/ 31.25			
HB2505080C	1 Pc.	Brinell	HBW 2.5/31.25	Aluminum	HW approx. 80	60x60x16
		HBW 2.5	/ 62.5			
HB2510080C	1 Pc.	Brinell	HBW 2.5/62.5	Aluminum	HW approx. 80	60x60x16
HB2510110C	1 Pc.	Brinell	HBW 2.5/62.5	Aluminum	HW approx. 110	60x60x16
HB2510130C	1 Pc.	Brinell	HBW 2.5/62.5	Aluminum	HW approx. 130	60x60x16
HB2510170C	1 Pc.	Brinell	HBW 2.5/62.5	Aluminum	HW approx. 170	60x60x16
HB2510200C	1 Pc.	Brinell	HBW 2.5/62.5	Steel	HW approx. 200	60x60x16
		HBW 2.5	/ 187.5			
HB2530110C	1 Pc.	Brinell	HBW 2.5/187.5	Aluminum	HW approx. 110	60x60x16

		HBW 2.5	/ 187.5			
HB2530110C	1 Pc.	Brinell	HBW 2.5/187.5	Aluminum	HW approx. 110	60x60x16
HB2530130C	1 Pc.	Brinell	HBW 2.5/187.5	Aluminum	HW approx. 130	60x60x16
HB2530170C	1 Pc.	Brinell	HBW 2.5/187.5	Aluminum	HW approx. 170	60x60x16
HB2530200C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 200	60x60x16
HB2530250C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 250	60x60x16
HB2530300C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 300	60x60x16
HB2530350C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 350	60x60x16
HB2530400C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 400	60x60x16
HB2530450C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 450	60x60x16
HB2530500C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 500	60x60x16
HB2530550C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 550	60x60x16
HB2530600C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 600	60x60x16
HB2530650C	1 Pc.	Brinell	HBW 2.5/187.5	Steel	HW approx. 650	60x60x16



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HB0130650C 1 Pc.

ltem No.	Unit	Descript	ion			
			NESS TEST B N ISO 6506-3			
			HBW	Material	HW* Dime	nsions (mm)
		HBW1/	5			
HB0105080C	1 Pc.	Brinell	HBW 1/5	Aluminum	HW approx. 80	60x60x16
		HBW1/	10			
HB0110080C	1 Pc.	Brinell	HBW 1/10	Aluminum	HW approx. 80	60x60x16
HB0110110C	1 Pc.	Brinell	HBW 1/10	Aluminum	HW approx. 110	60x60x16
HB0110130C	1 Pc.	Brinell	HBW 1/10	Aluminum	HW approx. 130	60x60x16
HB0110170C	1 Pc.	Brinell	HBW 1/10	Aluminum	HW approx. 170	60x60x16
HB0110200C	1 Pc.	Brinell	HBW 1/10	Steel	HW approx. 200	60x60x16
		HBW1/	30			
HB0130110C	1 Pc.	Brinell	HBW 1/30	Aluminum	HW approx. 110	60x60x16
HB0130110C HB0130130C	1 Pc. 1 Pc.	-		Aluminum Aluminum	HW approx. 110 HW approx. 130	60x60x16 60x60x16
		Brinell	HBW 1/30			
HB0130130C	1 Pc.	Brinell Brinell	HBW 1/30 HBW 1/30	Aluminum	HW approx. 130	60x60x16
HB0130130C HB0130170C	1 Pc. 1 Pc.	Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum	HW approx. 130 HW approx. 170	60x60x16 60x60x16
HB0130130C HB0130170C HB0130200C	1 Pc. 1 Pc. 1 Pc. 1 Pc.	Brinell Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum Steel	HW approx. 130 HW approx. 170 HW approx. 200	60x60x16 60x60x16 60x60x16
HB0130130C HB0130170C HB0130200C HB0130250C	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	Brinell Brinell Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum Steel Steel	HW approx. 130 HW approx. 170 HW approx. 200 HW approx. 250	60x60x16 60x60x16 60x60x16 60x60x16
HB0130130C HB0130170C HB0130200C HB0130250C HB0130300C	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	Brinell Brinell Brinell Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum Steel Steel Steel	HW approx. 130 HW approx. 170 HW approx. 200 HW approx. 250 HW approx. 300	60x60x16 60x60x16 60x60x16 60x60x16 60x60x16
HB0130130C HB0130170C HB0130200C HB0130250C HB0130350C	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	Brinell Brinell Brinell Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum Steel Steel Steel	HW approx. 130 HW approx. 200 HW approx. 250 HW approx. 300 HW approx. 350	60x60x16 60x60x16 60x60x16 60x60x16 60x60x16 60x60x16
HB0130130C HB0130170C HB0130200C HB0130250C HB0130300C HB0130350C HB0130400C	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	Brinell Brinell Brinell Brinell Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum Steel Steel Steel Steel	HW approx. 130 HW approx. 170 HW approx. 200 HW approx. 300 HW approx. 350 HW approx. 400	60x60x16 60x60x16 60x60x16 60x60x16 60x60x16 60x60x16
HB0130130C HB0130170C HB0130200C HB0130250C HB0130300C HB0130350C HB0130400C HB0130450C	1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc. 1 Pc.	Brinell Brinell Brinell Brinell Brinell Brinell Brinell Brinell	HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30 HBW 1/30	Aluminum Aluminum Steel Steel Steel Steel Steel	HW approx. 130 HW approx. 200 HW approx. 250 HW approx. 300 HW approx. 400 HW approx. 450	60x60x16 60x60x16 60x60x16 60x60x16 60x60x16 60x60x16 60x60x16

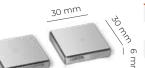
Brinell HBW 1/30

Steel

HW approx. 650 60x60x16



# **Oprep** Hardness test blocks Knoop



				ESS TEST B ISO 4545-3			
				НК	Material	HW* Dime	nsions (mm)
			HK 0.01				
	HKG010200E	1 Pc.	Knoop	HK 0.01	Steel	HW approx. 200	30x30x6
	HKG010250E	1 Pc.	Knoop	HK 0.01	Steel	HW approx. 250	30x30x6
ת	HKG010300E	1 Pc.	Knoop	HK 0.01	Steel	HW approx. 300	30x30x6
33	HKG010350E	1 Pc.	Knoop	HK 0.01	Steel	HW approx. 350	30x30x6
			HK 0.015				
	HKG015200E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 200	30x30x6
	HKG015250E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 250	30x30x6
	HKG015300E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 300	30x30x6
	HKG015350E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 350	30x30x6
	HKG015400E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 400	30x30x6
	HKG015450E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 450	30x30x6
	HKG015500E	1 Pc.	Knoop	HK 0.015	Steel	HW approx. 500	30x30x6
			HK 0.02				
1	HKG020200E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 200	30x30x6
	HKG020250E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 250	30x30x6
	HKG020300E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 300	30x30x6
	HKG020350E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 350	30x30x6
	HKG020400E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 400	30x30x6
	HKG020450E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 450	30x30x6
	HKG020500E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 500	30x30x6
	HKG020550E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 550	30x30x6
	HKG020600E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 600	30x30x6
	HKG020650E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 650	30x30x6
	HKG020700E	1 Pc.	Knoop	HK 0.02	Steel	HW approx. 700	30x30x6
1	HKG025200E	1 Pc.	<b>HK 0.025</b> Knoop	HK 0.025	Steel	HW approx. 200	30x30x6
	HKG025250E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 250	30x30x6
	HKG025300E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 300	30x30x6
	HKG025350E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 350	30x30x6
	HKG025400E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 400	30x30x6
	HKG025450E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 450	30x30x6
	HKG025500E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 500	30x30x6
	HKG025550E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 550	30x30x6
	HKG025600E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 600	30x30x6
	HKG025650E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 650	30x30x6
	HKG025700E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 700	30x30x6
	HKG025750E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 750	30x30x6
	HKG025800E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 800	30x30x6
	HKG025850E	1 Pc.	Knoop	HK 0.025	Steel	HW approx. 850	30x30x6

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	BLOCKS KN 3, ASTM ES		
нк	Material	HW* Dimer	nsions (mm)
111/ 0.05			70.70.0
HK 0.05	Steel	HW approx. 200	30x30x6
HK 0.05	Steel	HW approx. 250	30x30x6
HK 0.05	Steel	HW approx. 300	30x30x6
HK 0.05	Steel	HW approx. 350	30x30x6
HK 0.05	Steel	HW approx. 400	30x30x6



HKG050200E

HKG050250E

HKG050300E

HKG050350E

HKG050400E

1 Pc.

1 Pc.

1 Pc.

1 Pc.

1 Pc.

					1.1	
HKG050450E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 450	30x30x6
HKG050500E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 500	30x30x6
HKG050550E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 550	30x30x6
HKG050600E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 600	30x30x6
HKG050650E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 650	30x30x6
HKG050700E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 700	30x30x6
HKG050750E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 750	30x30x6
HKG050800E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 800	30x30x6
HKG050850E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 850	30x30x6
HKG050900E	1 Pc.	Knoop	HK 0.05	Steel	HW approx. 900	30x30x6
		HK 0.1				
HKG100200E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 200	30x30x6
HKG100250E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 250	30x30x6
HKG100300E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 300	30x30x6
HKG100350E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 350	30x30x6
HKG100400E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 400	30x30x6
HKG100450E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 450	30x30x6
HKG100500E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 500	30x30x6
HKG100550E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 550	30x30x6
HKG100600E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 600	30x30x6
HKG100650E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 650	30x30x6
HKG100700E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 700	30x30x6
HKG100750E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 750	30x30x6
HKG100800E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 800	30x30x6
HKG100850E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 850	30x30x6
HKG100900E	1 Pc.	Knoop	HK 0.1	Steel	HW approx. 900	30x30x6
		HK 0.2				
HKG200200E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 200	30x30x6
HKG200250E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 250	30x30x6
HKG200300E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 300	30x30x6
HKG200350E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 350	30x30x6
HKG200400E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 400	30x30x6
HKG200450E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 450	30x30x6
HKG200500E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 500	30x30x6
HKG200550E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 550	30x30x6
HKG200600E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 600	30x30x6
HKG200650E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 650	30x30x6
HKG200700E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 700	30x30x6
HKG200750E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 750	30x30x6
HKG200800E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 800	30x30x6
HKG200850E	1 Pc.	Knoop	HK 0.2	Steel	HW approx. 850	30x30x6
		1/maan		Ctool	LIVA approx 000	70,70,70

HARDNESS TES (DIN EN ISO 45-

HK 0.05

Knoop

Knoop

Knoop

Knoop

Knoop

HW\* = Hardness value

HKG200900E 1 Pc.

QATM price list 2023/E · valid as of December 1, 2022 · all prices FCA Mammelzen · General Terms and Conditions: www.qatm.com/terms ATM Qness GmbH · Emil-Reinert-Str. 2 · 57636 Mammelzen · Germany Phone: +49 2681 9539-0 · Fax: +49 2681 9539-20 · E-Mail: info@qatm.com · www.qatm.com

Knoop

HK 0.2

Steel

HW approx. 900 30x30x6



	ltem No.	Unit	Description	า				
				ESS TEST BI ISO 4545-3				
				нк	Material	HW*	Dimer	sions (mm)
			HK 0.3					
	HKG300200E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	k. 200	30x30x6
	HKG300250E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	k. 250	30x30x6
റ	HKG300300E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	. 300	30x30x6
mm	HKG300350E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	(. 350	30x30x6
	HKG300400E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	(. 400	30x30x6
	HKG300450E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	(. 450	30x30x6
	HKG300500E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	k. 500	30x30x6
	HKG300550E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	. 550	30x30x6
	HKG300600E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	(. 600	30x30x6
	HKG300650E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	(. 650	30x30x6
	HKG300700E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	k. 700	30x30x6
	HKG300750E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	. <b>7</b> 50	30x30x6
	HKG300800E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	(. 800	30x30x6
	HKG300850E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	. 850	30x30x6
	HKG300900E	1 Pc.	Knoop	HK 0.3	Steel	HW approx	k. 900	30x30x6
			HK 0.5					
	HKG500200E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	k. 200	30x30x6
	HKG500250E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	k. 250	30x30x6
	HKG500300E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	. 300	30x30x6
	HKG500350E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	(. 350	30x30x6
	HKG500400E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	(. 400	30x30x6
	HKG500450E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	(. 450	30x30x6
	HKG500500E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	k. 500	30x30x6
	HKG500550E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	k. 550	30x30x6
	HKG500600E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	(. 600	30x30x6
	HKG500650E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	(. 650	30x30x6
	HKG500700E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	k. 700	30x30x6
	HKG500750E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	. 750	30x30x6
	HKG500800E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	. 800	30x30x6
	HKG500850E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	. 850	30x30x6
	HKG500900E	1 Pc.	Knoop	HK 0.5	Steel	HW approx	k. 900	30x30x6

30 mm



30 mm	HKK
3011111	HKK
	HKK
long long	HKK
all	HKK
	HKK

		HARDNESS TEST BLOCKS KNOOP (DIN EN ISO 4545-3, ASTM E92)					
			НК	Material	HW*	Dimen	sions (mm)
		НК 1					
HKK001200E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 200	30x30x6
HKK001250E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 250	30x30x6
HKK001300E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 300	30x30x6
HKK001350E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 350	30x30x6
HKK001400E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 400	30x30x6
HKK001450E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 450	30x30x6
HKK001500E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 500	30x30x6
HKK001550E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 550	30x30x6
HKK001600E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 600	30x30x6
HKK001650E	1 Pc.	Knoop	HK1	Steel	HW approx	x. 650	30x30x6
HKK001700E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 700	30x30x6
HKK001750E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 750	30x30x6
HKK001800E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 800	30x30x6
HKK001850E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 850	30x30x6
HKK001900E	1 Pc.	Knoop	HK 1	Steel	HW approx	x. 900	30x30x6
	10-	HK 2		Chaol		. 200	70,70,40
HKK002200E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002250E HKK002300E	1 Pc.	Knoop	HK 2	Steel Steel	HW approx		30x30x6
	1 Pc.	Knoop	HK 2		HW approx		30x30x6
HKK002350E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002400E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002450E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002500E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002550E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002600E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002650E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002700E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002750E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002800E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002850E	1 Pc.	Knoop	HK 2	Steel	HW approx		30x30x6
HKK002900E	1 Pc.	Knoop	HK 2	Steel	HW appro:	x. 900	30x30x6



## **Oprep** Hardness test blocks Rockwell

HARDNESS TESTING - HARDNESS TEST BLO

Qprep

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				SO 6508-3	LOCKS RC 3, ASTM E18	3)	
ଚ				HR	Material	HW* Dim	ensions (mm)
60 1113			HRA				
16 mm	HR0HRA029C	1 Pc.	Rockwell	HRA	Aluminum	HW approx. 29	60x60x16
	HR0HRA040C	1 Pc.	Rockwell	HRA	Aluminum	HW approx. 40	60x60x16
	HR0HRA045C	1 Pc.	Rockwell	HRA	Aluminum	HW approx. 45	60x60x16
	HR0HRA053C	1 Pc.	Rockwell	HRA	Aluminum	HW approx. 53	
	HR0HRA057C	1 Pc.	Rockwell	HRA	Steel	HW approx. 57	60x60x16
Ì.	HR0HRA060C	1 Pc.	Rockwell	HRA	Steel	HW approx. 60	60x60x16
	HR0HRA062C	1 Pc.	Rockwell	HRA	Steel	HW approx. 62	60x60x16
	HR0HRA066C	1 Pc.	Rockwell	HRA	Steel	HW approx. 66	60x60x16
	HR0HRA069C	1 Pc.	Rockwell	HRA	Steel	HW approx. 69	
	HR0HRA071C	1 Pc.	Rockwell	HRA	Steel	HW approx. 71	60x60x16
	HR0HRA073C	1 Pc.	Rockwell	HRA	Steel	HW approx. 73	
	HR0HRA075C	1 Pc.	Rockwell	HRA	Steel	HW approx. 75	
	HROHRA077C	1 Pc.	Rockwell	HRA	Steel	HW approx. 77	
	HR0HRA079C	1 Pc.	Rockwell	HRA	Steel	HW approx. 79	
	HR0HRA080C	1 Pc.	Rockwell	HRA	Steel	HW approx. 80	60x60x16
	HR0HRA081C	1 Pc.	Rockwell	HRA	Steel	HW approx. 81	60x60x16
	HR0HRA082C	1 Pc.	Rockwell	HRA	Steel	HW approx. 82	60x60x16
	HR0HRA083C	1 Pc.	Rockwell	HRA	Steel	HW approx. 83	
	HR0HRA084C	1 Pc.	Rockwell	HRA	Steel	HW approx. 84	60x60x16
	HR0HRA085C	1 Pc.	Rockwell	HRA	Steel	HW approx. 85	60x60x16
			HRB				
	HR0HRB032C	1 Pc.	Rockwell	HRB	Aluminum	HW approx. 32	60x60x16
	HR0HRB060C	1 Pc.	Rockwell	HRB	Aluminum	HW approx. 60	60x60x16
	HR0HRB072C	1 Pc.	Rockwell	HRB	Aluminum	HW approx. 72	60x60x16
	HR0HRB086C	1 Pc.	Rockwell	HRB	Aluminum	HW approx. 86	60x60x16
	HR0HRB094C	1 Pc.	Rockwell	HRB	Steel	HW approx. 94	60x60x16
	HR0HRB098C	1 Pc.	Rockwell	HRB	Steel	HW approx. 98	60x60x16
			HRC				
	HR0HRC015C	1 Pc.	Rockwell	HRC	Steel	HW approx. 15	60x60x16
	HR0HRC019C	1 Pc.	Rockwell	HRC	Steel	HW approx. 19	60x60x16
	HR0HRC024C	1 Pc.	Rockwell	HRC	Steel	HW approx. 24	60x60x16
	HR0HRC031C	1 Pc.	Rockwell	HRC	Steel	HW approx. 31	60x60x16
	HR0HRC037C	1 Pc.	Rockwell	HRC	Steel	HW approx. 37	60x60x16
	HR0HRC041C	1 Pc.	Rockwell	HRC	Steel	HW approx. 41	60x60x16
	HR0HRC046C	1 Pc.	Rockwell	HRC	Steel	HW approx. 46	60x60x16
	HR0HRC049C	1 Pc.	Rockwell	HRC	Steel	HW approx. 49	60x60x16
	HR0HRC052C	1 Pc.	Rockwell	HRC	Steel	HW approx. 52	60x60x16
	HR0HRC055C	1 Pc.	Rockwell	HRC	Steel	HW approx. 55	60x60x16
	HR0HRC058C	1 Pc.	Rockwell	HRC	Steel	HW approx. 58	60x60x16
	HR0HRC060C	1 Pc.	Rockwell	HRC	Steel	HW approx. 60	60x60x16
	HR0HRC062C	1 Pc.	Rockwell	HRC	Steel	HW approx. 62	60x60x16
	HR0HRC063C	1 Pc.	Rockwell	HRC	Steel	HW approx. 63	
	HR0HRC064C	1 Pc.	Rockwell	HRC	Steel	HW approx. 64	
	HR0HRC065C	1 Pc.	Rockwell	HRC	Steel	HW approx. 65	60x60x16
	HR0HRC066C	1 Pc.	Rockwell	HRC	Steel	HW approx. 66	60x60x16
le	HR0HRC068C	1 Pc.	Rockwell	HRC	Steel	HW approx. 68	60x60x16

HW\* = Hardness value

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Item No.	Unit	Descriptior	1			
		(DIN EN	HR	-3, ASTM E18 Material		ensions (mr
		HRD		Material	Dink	
HR0HRD045C	1 Pc.	Rockwell	HRD	Aluminum	HW approx. 45	60x60x16
HR0HRD059C	1 Pc.	Rockwell	HRD	Aluminum	HW approx. 59	60x60x16
HROHRD065C	1 Pc.	Rockwell	HRD	Steel	HW approx. 65	60x60x16
HROHRD069C	1 Pc.	Rockwell	HRD	Steel	HW approx. 69	60x60x16
HR0HRD072C	1 Pc.	Rockwell	HRD	Steel	HW approx. 72	60x60x16
		HRE				
HR0HRE088C	1 Pc.	Rockwell	HRE	Aluminum	HW approx. 88	60x60x16
HROHRE100C	1 Pc.	Rockwell	HRE	Aluminum	HW approx. 100	60x60x16
		HRF				
HR0HRF077C	1 Pc.	Rockwell	HRF	Aluminum	HW approx. 77	60x60x16
HROHRF092C	1 Pc.	Rockwell	HRF	Aluminum	HW approx. 92	60x60x16
HROHRF098C	1 Pc.	Rockwell	HRF	Aluminum	HW approx. 98	60x60x16
		HR15N				
HR015N070C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 70	60x60x16
HR015N075C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 75	60x60x16
HR015N078C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 78	60x60x16
HR015N081C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 81	60x60x16
HR015N083C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 83	60x60x16
HR015N085C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 85	60x60x16
HR015N086C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 86	60x60x16
HR015N088C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 88	60x60x16
HR015N089C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 89	60x60x16
HR015N090C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 90	60x60x16
HR015N091C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 91	60x60x16
HR015N092C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 92	60x60x16
HR015N093C	1 Pc.	Rockwell	HR15N	Steel	HW approx. 93	60x60x16
		HR15T				
HR015T072C	1 Pc.	Rockwell	HR15T	Aluminum	HW approx. 72	60x60x16
HR015T080C	1 Pc.	Rockwell	HR15T	Aluminum	HW approx. 80	60x60x16
HR015T084C	1 Pc.	Rockwell	HR15T	Aluminum	HW approx. 84	60x60x16
HR015T088C	1 Pc.	Rockwell	HR15T	Aluminum	HW approx. 88	60x60x16
HR015T090C	1 Pc.	Rockwell	HR15T	Steel	HW approx. 90	60x60x16
HR015T091C	1 Pc.	Rockwell	HR15T	Steel	HW approx. 91	60x60x16
HR015T092C	1 Pc.	Rockwell	HR15T	Steel	HW approx. 92	60x60x16
HR015T094C	1 Pc.	Rockwell	HR15T	Steel	HW approx. 94	60x60x16



ltem No.	Unit	Description	า			
				BLOCKS RC		
		(DIN EN		-3, ASTM E18		
			HR	Material	HW* Dir	nensions (mm
	1.0.	HR30N		Charl		7 60.00.10
HR030N043C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 4	
HR030N050C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 5	
HR030N056C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 5	
HR030N060C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 6	
HR030N064C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 6	
HR030N067C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 6	
HR030N070C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 7	
HR030N073C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 7	
HR030N075C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 7	
HR030N077C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 7	
HR030N079C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 7	
HR030N080C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 8	
HR030N081C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 8	
HR030N082C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 8	
HR030N083C	1 Pc.	Rockwell	HR30N	Steel	HW approx. 8	3 60x60x16
		HR30T				
HR030T040C	1 Pc.	Rockwell	HR30T	Aluminum	HW approx. 4	0 60x60x16
HR030T057C	1 Pc.	Rockwell	HR30T	Aluminum	HW approx. 5	7 60x60x16
HR030T064C	1 Pc.	Rockwell	HR30T	Aluminum	HW approx. 6	4 60x60x16
HR030T073C	1 Pc.	Rockwell	HR30T	Aluminum	HW approx. 7	3 60x60x16
HR030T077C	1 Pc.	Rockwell	HR30T	Steel	HW approx. 7	7 60x60x16
HR030T080C	1 Pc.	Rockwell	HR30T	Steel	HW approx. 8	
HR030T082C	1 Pc.	Rockwell	HR30T	Steel	HW approx. 8	
	10.	HR45N		Charl	1.11.4/	7
HR045N023C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 2	
HR045N031C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 3	
HR045N039C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 3	
HR045N044C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 4	
HR045N049C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 4	
HR045N054C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 5	
HR045N057C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 5	
HR045N060C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 6	
HR045N063C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 6	
HR045N066C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 6	
HR045N068C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 6	
HR045N069C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 6	9 60x60x16
HR045N071C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 7	1 60x60x16
HR045N072C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 7	2 60x60x16
HR045N073C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 7	3 60x60x16
HR045N074C	1 Pc.	Rockwell	HR45N	Steel	HW approx. 7	4 60x60x16
		HR45T				
HR045T009C	1 Pc.	Rockwell	HR45T	Aluminum	HW approx. 9	60x60x16
HR045T034C	1 Pc.	Rockwell	HR45T	Aluminum	HW approx. 3	
HR045T045C	1 Pc.	Rockwell	HR45T	Aluminum	HW approx. 4	
HR045T059C	1 Pc.	Rockwell	HR45T	Aluminum	HW approx. 5	
HR045T065C	1 Pc.	Rockwell	HR45T	Steel	HW approx. 6	
11101510050					1 1	
HR045T069C	1 Pc.	Rockwell	HR45T	Steel	HW approx. 6	9 60x60x16

60 mm

CATM

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HW\* = Hardness value

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# *Rprep* Hardness test blocks Vickers



ltem No.	Unit	Descriptio	n				
		HARDNI	ESS TEST B	LOCKS VI	CKERS		
			ISO 6507-3				
			HV	Material	HW*	Dimens	sions (mm)
		HV 0.01					
HVG010200E	1 Pc.	Vickers	HV 0.010	Steel	HW appro	ox. 200	30x30x6
	1.D.	HV 0.015 Vickers		Chaol		200	70,470,40
HVG015200E HVG015250E	1 Pc. 1 Pc.	Vickers	HV 0.015 HV 0.015	Steel Steel	HW appro		30x30x6 30x30x6
HVG015250E	TPC.	VICKEIS	HV 0.015	Sleer	HW appro	JX. 230	30X30X6
		HV 0.02					
HVG020200E	1 Pc.	Vickers	HV 0.02	Steel	HW appro	ox. 200	30x30x6
HVG020250E	1 Pc.	Vickers	HV 0.02	Steel	HW appro	ox. 250	30x30x6
HVG020300E	1 Pc.	Vickers	HV 0.02	Steel	HW appro	ox. 300	30x30x6
HVG020350E	1 Pc.	Vickers	HV 0.02	Steel	HW appro	ox. 350	30x30x6
		HV 0.025					
HVG025200E	1 Pc.	Vickers	HV 0.025	Steel	HW appro	ox. 200	30x30x6
HVG025250E	1 Pc.	Vickers	HV 0.025	Steel	HW appro	ox. 250	30x30x6
HVG025300E	1 Pc.	Vickers	HV 0.025	Steel	HW appro	ox. 300	30x30x6
HVG025350E	1 Pc.	Vickers	HV 0.025	Steel	HW appro	ox. 350	30x30x6
HVG025400E	1 Pc.	Vickers	HV 0.025	Steel	HW appro	ox. 400	30x30x6
HVG025450E	1 Pc.	Vickers	HV 0.025	Steel	HW appro	ox. 450	30x30x6
	1.D-	HV 0.05		Chaol		200	7047040
HVG050200E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050250E HVG050300E	1 Pc. 1 Pc.	Vickers Vickers	HV 0.05 HV 0.05	Steel Steel	HW appro		30x30x6 30x30x6
HVG050350E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050400E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050450E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050500E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050550E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050600E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050650E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050700E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050750E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050800E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050850E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
HVG050900E	1 Pc.	Vickers	HV 0.05	Steel	HW appro		30x30x6
		FIGRETS	. 11 0.00	00001			00/00/0



Item No.	Unit	Descriptio	on				
				BLOCKS V -3, ASTM E			
			HV	Material	HW*	Dimen	sions (mm
		HV 0.1		ind to find		Dimen	
HVG100200E	1 Pc.	Vickers	HV 0.1	Steel	HW ap	prox. 200	30x30x6
HVG100250E	1 Pc.	Vickers	HV 0.1	Steel	HW ap	prox. 250	30x30x6
HVG100300E	1 Pc.	Vickers	HV 0.1	Steel		prox. 300	30x30x6
HVG100350E	1 Pc.	Vickers	HV 0.1	Steel		prox. 350	30x30x6
HVG100400E	1 Pc.	Vickers	HV 0.1	Steel		prox. 400	30x30x6
HVG100450E	1 Pc.	Vickers	HV 0.1	Steel		prox. 450	30x30x6
HVG100500E	1 Pc.	Vickers	HV 0.1	Steel		prox. 500	30x30x6
HVG100550E	1 Pc.	Vickers	HV 0.1	Steel		prox. 550	30x30x6
HVG100600E	1 Pc.	Vickers	HV 0.1	Steel		prox. 600	30x30x6
HVG100650E	1 Pc.	Vickers	HV 0.1	Steel		prox. 650	30x30x6
HVG100700E	1 Pc.	Vickers	HV 0.1	Steel		prox. 000	30x30x6
HVG100750E	1 Pc.	Vickers	HV 0.1	Steel		prox. 700 prox. 750	30x30x6
HVG100730E	1 Pc.	Vickers	HV 0.1	Steel			30x30x6
HVG100850E	1 Pc.	Vickers				prox. 800	30x30x0
			HV 0.1	Steel		prox. 850	
HVG100900E	1 Pc.	Vickers	HV 0.1	Steel	нүү ар	prox. 900	30x30x6
		HV 0.2					
HVG200200E	1 Pc.	Vickers	HV 0.2	Steel	HW ap	prox. 200	30x30x6
HVG200250E	1 Pc.	Vickers	HV 0.2	Steel		prox. 250	30x30x(
HVG200300E	1 Pc.	Vickers	HV 0.2	Steel		prox. 300	30x30x
HVG200350E	1 Pc.	Vickers	HV 0.2	Steel		prox. 350	30x30x(
HVG200400E	1 Pc.	Vickers	HV 0.2	Steel		prox. 400	30x30x6
HVG200450E	1 Pc.	Vickers	HV 0.2	Steel		prox. 450	30x30x0
HVG200500E	1 Pc.	Vickers	HV 0.2	Steel		prox. 500	30x30x6
HVG200550E	1 Pc.	Vickers	HV 0.2	Steel		prox. 550	30x30x0
HVG200600E	1 Pc.	Vickers	HV 0.2	Steel		prox. 600	30x30x0
HVG200650E	1 Pc.	Vickers	HV 0.2	Steel		prox. 650	30x30x0
HVG200700E	1 Pc.	Vickers	HV 0.2	Steel		prox. 000 prox. 700	30x30x0
HVG200750E		Vickers	HV 0.2	Steel			30x30x6
HVG200750E	1 Pc. 1 Pc.	Vickers		Steel		prox. 750	
HVG200800E	1 Pc.	Vickers	HV 0.2 HV 0.2	Steel		prox. 800 prox. 850	30x30x6 30x30x6
HVG200850E	1 Pc.	Vickers	HV 0.2 HV 0.2	Steel		prox. 850 prox. 900	30x30x6
1100200900E	1 F G.	VICKEIS	110 0.2	JLEEI	inv ap	0107. 200	5072020
		HV 0.3					
HVG300200E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 200	30x30x6
HVG300250E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 250	30x30x6
HVG300300E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 300	30x30x6
HVG300350E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 350	30x30x6
HVG300400E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 400	30x30x6
HVG300450E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 450	30x30x6
HVG300500E	1 Pc.	Vickers	HV 0.3	Steel	HW ap	prox. 500	30x30x6
HVG300550E	1 Pc.	Vickers	HV 0.3	Steel		prox. 550	30x30x6
HVG300600E	1 Pc.	Vickers	HV 0.3	Steel		prox. 600	30x30x6
HVG300650E	1 Pc.	Vickers	HV 0.3	Steel		prox. 650	30x30x6
HVG300700E	1 Pc.	Vickers	HV 0.3	Steel		prox. 700	30x30x6
HVG300750E	1 Pc.	Vickers	HV 0.3	Steel		prox. 750	30x30x6
HVG300800E	1 Pc.	Vickers	HV 0.3	Steel		prox. 900	30x30x6
	1 Pc.	Vickers		Steel		prov. 850	2022020

30 M

30 mm

HARDNESS TESTING Qprep

120

HW\* = Hardness value

Vickers

Vickers

HV 0.3

HV 0.3

Steel

Steel

HW approx. 850

HW approx. 900

30x30x6

30x30x6

1 Pc.

1 Pc.

HVG300850E

HVG300900E



	ltem No.	Unit	Descriptior	1				
				SS TEST BL ISO 6507-3,				
				HV	Material		Dimensi	ons (mm)
			HV 0.5					
	HVG500200E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 200	30x30x6
	HVG500250E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 250	30x30x6
3	HVG500300E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 300	30x30x6
6 mm	HVG500350E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 350	30x30x6
m	HVG500400E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 400	30x30x6
	HVG500450E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 450	30x30x6
	HVG500500E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 500	30x30x6
	HVG500550E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 550	30x30x6
	HVG500600E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 600	30x30x6
	HVG500650E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 650	30x30x6
	HVG500700E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 700	30x30x6
	HVG500750E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 750	30x30x6
	HVG500800E	1 Pc.	Vickers	HV 0.5	Steel	HW appro	x. 800	30x30x6
	HVG500850E	1 Pc.	Vickers	HV 0.5	Steel	HW appro		30x30x6
	HVG500900E	1 Pc.	Vickers	HV 0.5	Steel	HW appro		30x30x6
			HV 1					
	HVK001200E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 200	30x30x6
	HVK001250E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 250	30x30x6
	HVK001300E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 300	30x30x6
	HVK001350E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 350	30x30x6
	HVK001400E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 400	30x30x6
	HVK001450E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 450	30x30x6
	HVK001500E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 500	30x30x6
	HVK001550E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 550	30x30x6
	HVK001600E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 600	30x30x6
	HVK001650E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 650	30x30x6
	HVK001700E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 700	30x30x6
	HVK001750E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 750	30x30x6
	HVK001800E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 800	30x30x6
	HVK001850E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 850	30x30x6
	HVK001900E	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 900	30x30x6
			HV 1					
	HVK001080C	1 Pc.	Vickers	HV 1	Aluminum	HW appro	x. 80	60x60x16
	HVK001110C	1 Pc.	Vickers	HV 1	Aluminum			60x60x16
n mm	HVK001130C	1 Pc.	Vickers	HV 1	Aluminum	HW appro	x. 130	60x60x16
3	HVK001170C	1 Pc.	Vickers	HV 1	Aluminum	HW appro	x. 170	60x60x16
	HVK001200C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 200	60x60x16
	HVK001250C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 250	60x60x16
	HVK001300C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 300	60x60x16
	HVK001350C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 350	60x60x16
	HVK001400C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 400	60x60x16
	HVK001450C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 450	60x60x16
	HVK001500C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 500	60x60x16
	HVK001550C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 550	60x60x16
	HVK001600C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 600	60x60x16
	HVK001650C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 650	60x60x16
	HVK001700C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 700	60x60x16
	HVK001750C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 750	60x60x16
	HVK001800C	1 Pc.	Vickers	HV 1	Steel	HW appro	x. 800	60x60x16



60 mm

GATA

16 mm

HVK001850C

HVK001900C

1 Pc.

1 Pc.

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Vickers

Vickers

HV 1

HV 1

Steel

Steel

HW approx. 850

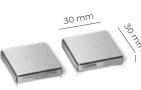
HW approx. 900

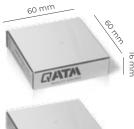
60x60x16

60x60x16



	ltem No.	Unit	Descriptior	ı			
				SS TEST BL ISO 6507-3,			
				HV	Material		nensions (mm)
			HV 2				
	HVK002200E	1 Pc.	Vickers	HV 2	Steel	HW approx. 20	00 30x30x6
to min 6 mm	HVK002250E	1 Pc.	Vickers	HV 2	Steel	HW approx. 25	50 30x30x6
\3	HVK002300E	1 Pc.	Vickers	HV 2	Steel	HW approx. 30	00 30x30x6
mm	HVK002350E	1 Pc.	Vickers	HV 2	Steel	HW approx. 35	50 30x30x6
2	HVK002400E	1 Pc.	Vickers	HV 2	Steel	HW approx. 40	00 30x30x6
	HVK002450E	1 Pc.	Vickers	HV 2	Steel	HW approx. 45	50 30x30x6
	HVK002500E	1 Pc.	Vickers	HV 2	Steel	HW approx. 50	00 30x30x6
	HVK002550E	1 Pc.	Vickers	HV 2	Steel	HW approx. 55	50 30x30x6
	HVK002600E	1 Pc.	Vickers	HV 2	Steel	HW approx. 60	00 30x30x6
	HVK002650E	1 Pc.	Vickers	HV 2	Steel	HW approx. 65	50 30x30x6
	HVK002700E	1 Pc.	Vickers	HV 2	Steel	HW approx. 70	00 30x30x6
	HVK002750E	1 Pc.	Vickers	HV 2	Steel	HW approx. 75	50 30x30x6
	HVK002800E	1 Pc.	Vickers	HV 2	Steel	HW approx. 80	00 30x30x6
	HVK002850E	1 Pc.	Vickers	HV 2	Steel	HW approx. 85	50 30x30x6
	HVK002900E	1 Pc.	Vickers	HV 2	Steel	HW approx. 90	00 30x30x6
			HV 2				
	HVK002080C	1 Pc.	Vickers	HV 2	Aluminum	HW approx. 80	0 60x60x16
3	HVK002110C	1 Pc.	Vickers	HV 2		HW approx. 110	
16 mm	HVK002130C	1 Pc.	Vickers	HV 2		HW approx. 13	
l mm	HVK002170C	1 Pc.	Vickers	HV 2		HW approx. 17	
	HVK002200C	1 Pc.	Vickers	HV 2	Steel	HW approx. 20	
	HVK002250C	1 Pc.	Vickers	HV 2	Steel	HW approx. 25	
	HVK002300C	1 Pc.	Vickers	HV 2	Steel	HW approx. 30	
	HVK002350C	1 Pc.	Vickers	HV 2	Steel	HW approx. 35	
	HVK002400C	1 Pc.	Vickers	HV 2	Steel	HW approx. 40	00 60x60x16
	HVK002450C	1 Pc.	Vickers	HV 2	Steel	HW approx. 45	50 60x60x16
	HVK002500C	1 Pc.	Vickers	HV 2	Steel	HW approx. 50	00 60x60x16
	HVK002550C	1 Pc.	Vickers	HV 2	Steel	HW approx. 55	60 60x60x16
	HVK002600C	1 Pc.	Vickers	HV 2	Steel	HW approx. 60	
	HVK002650C	1 Pc.	Vickers	HV 2	Steel	HW approx. 65	
	HVK002700C	1 Pc.	Vickers	HV 2	Steel	HW approx. 70	
	HVK002750C	1 Pc.	Vickers	HV 2	Steel	HW approx. 75	
	HVK002800C	1 Pc.	Vickers	HV 2	Steel	HW approx. 80	
	HVK002850C	1 Pc.	Vickers	HV 2	Steel	HW approx. 85	





60	mm	_	、 、
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Vickers

HV 2

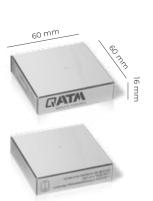
Steel

HW approx. 900

60x60x16

HVK002900C 1 Pc.

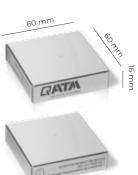




			SS TEST BI				
		(DIN EN	ISO 6507-3,			Dimensional	
		HV 3	HV	Material	HW*	Dimensi	ons (mm)
HVK003080C	1 Pc.	Vickers	HV 3	Aluminum	HW approx	x. 80	60x60x16
HVK003110C	1 Pc.	Vickers	HV 3	Aluminum			60x60x16
HVK003130C	1 Pc.	Vickers	HV 3	Aluminum			60x60x16
HVK003170C	1 Pc.	Vickers	HV 3	Aluminum			60x60x16
HVK003200C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003250C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003300C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003350C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003400C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003450C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003500C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003550C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003600C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003650C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003700C	1 Pc.	Vickers	HV 3	Steel	HW approx	x. 700	60x60x16
HVK003750C	1 Pc.	Vickers	HV 3	Steel	HW approx		60x60x16
HVK003800C	1 Pc.	Vickers	HV 3	Steel	HW approx	x. 800	60x60x16
HVK003850C	1 Pc.	Vickers	HV 3	Steel	HW approx	x. 850	60x60x16
HVK003900C	1 Pc.	Vickers	HV 3	Steel	HW approx	x. 900	60x60x16
		HV 5					
HVK005080C	1 Pc.	Vickers	HV 5	Aluminum	HW approx	x. 80	60x60x16
HVK005110C	1 Pc.	Vickers	HV 5	Aluminum	HW approx	k. 110	60x60x16
HVK005130C	1 Pc.	Vickers	HV 5	Aluminum	HW approx	x. 130	60x60x16
HVK005170C	1 Pc.	Vickers	HV 5	Aluminum	HW approx	x. 170	60x60x16
HVK005200C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 200	60x60x16
HVK005250C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 250	60x60x16
HVK005300C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 300	60x60x16
HVK005350C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 350	60x60x16
HVK005400C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 400	60x60x16
HVK005450C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 450	60x60x16
HVK005500C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 500	60x60x16
HVK005550C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 550	60x60x16
HVK005600C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 600	60x60x16
HVK005650C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 650	60x60x16
HVK005700C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 700	60x60x16
HVK005750C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 750	60x60x16
HVK005800C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 800	60x60x16
HVK005850C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 850	60x60x16
HVK005900C	1 Pc.	Vickers	HV 5	Steel	HW approx	x. 900	60x60x16



ltem No.	Unit	Descriptior	ר				
			ESS TEST BI				
			ISO 6507-3				
			HV	Material	HW*	Dimensi	ons (mm)
		HV 10					
HVK010080C	1 Pc.	Vickers	HV 10	Aluminum	HW appro	ox. 80	60x60x16
HVK010110C	1 Pc.	Vickers	HV 10	Aluminum	HW appro	ox. 110	60x60x16
HVK010130C	1 Pc.	Vickers	HV 10	Aluminum	HW appro	ox. 130	60x60x16
HVK010170C	1 Pc.	Vickers	HV 10	Aluminum	HW appro	ox. 170	60x60x16
HVK010200C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 200	60x60x16
HVK010250C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 250	60x60x16
HVK010300C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 300	60x60x16
HVK010350C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 350	60x60x16
HVK010400C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 400	60x60x16
HVK010450C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 450	60x60x16
HVK010500C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 500	60x60x16
HVK010550C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 550	60x60x16
HVK010600C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 600	60x60x16
HVK010650C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 650	60x60x16
HVK010700C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 700	60x60x16
HVK010750C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 750	60x60x16
HVK010800C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 800	60x60x16
HVK010850C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 850	60x60x16
HVK010900C	1 Pc.	Vickers	HV 10	Steel	HW appro	ox. 900	60x60x16
		HV 20					
HVK020080C	1 Pc.	Vickers	HV 20	Aluminum	HW appro	ox. 80	60x60x16
HVK020110C	1 Pc.	Vickers	HV 20	Aluminum	HW appro	ox. 110	60x60x16
HVK020130C	1 Pc.	Vickers	HV 20	Aluminum	HW appro	ox. 130	60x60x16
HVK020170C	1 Pc.	Vickers	HV 20	Aluminum	HW appro	ox. 170	60x60x16
HVK020200C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 200	60x60x16
HVK020250C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 250	60x60x16
HVK020300C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 300	60x60x16
HVK020350C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 350	60x60x16
HVK020400C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 400	60x60x16
HVK020450C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 450	60x60x16
HVK020500C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 500	60x60x16
HVK020550C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 550	60x60x16
HVK020600C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 600	60x60x16
HVK020650C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 650	60x60x16
HVK020700C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 700	60x60x16
HVK020750C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 750	60x60x16
HVK020800C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 800	60x60x16
HVK020850C	1 Pc.	Vickers	HV 20	Steel	HW appro	ox. 850	60x60x16



HVK020900C 1 Pc.

HW\* = Hardness value

Vickers

HV 20

Steel

HW approx. 900

60x60x16



60 mm	
60	
16 mm	
Liperin	
wanter and the state of the sta	
[]	

			ESS TEST B ISO 6507-3				
			HV	Material	HW*	Dimensi	ions (mm
		HV 30					
HVK030080C	1 Pc.	Vickers	HV 30	Aluminum			60x60x1
HVK030110C	1 Pc.	Vickers	HV 30	Aluminum			60x60x10
HVK030130C	1 Pc.	Vickers	HV 30	Aluminum	HW appro	x. 130	60x60x1
HVK030170C	1 Pc.	Vickers	HV 30	Aluminum	HW appro	x. 170	60x60x1
HVK030200C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 200	60x60x1
HVK030250C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 250	60x60x1
HVK030300C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 300	60x60x1
HVK030350C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 350	60x60x1
HVK030400C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 400	60x60x1
HVK030450C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 450	60x60x1
HVK030500C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 500	60x60x1
HVK030550C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 550	60x60x1
HVK030600C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 600	60x60x1
HVK030650C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 650	60x60x1
HVK030700C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 700	60x60x1
HVK030750C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 750	60x60x1
HVK030800C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 800	60x60x1
HVK030850C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 850	60x60x1
HVK030900C	1 Pc.	Vickers	HV 30	Steel	HW appro	x. 900	60x60x1
		HV 50					
HVK050080C	1 Pc.	Vickers	HV 50	Aluminum	HW appro	x. 80	60x60x1
HVK050110C	1 Pc.	Vickers	HV 50	Aluminum	HW appro	x. 110	60x60x1
HVK050130C	1 Pc.	Vickers	HV 50	Aluminum	HW appro	x. 130	60x60x1
HVK050170C	1 Pc.	Vickers	HV 50	Aluminum	HW appro	x. 170	60x60x1
HVK050200C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 200	60x60x1
HVK050250C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 250	60x60x1
HVK050300C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 300	60x60x1
HVK050350C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 350	60x60x1
HVK050400C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 400	60x60x1
HVK050450C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 450	60x60x1
HVK050500C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 500	60x60x1
HVK050550C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 550	60x60x1
HVK050600C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 600	60x60x1
HVK050650C	1 Pc.	Vickers	HV 50	Steel	HW appro	x. 650	60x60x1
HVK050700C	1 Pc.	Vickers	HV 50	Steel	HW appro		60x60x1
HVK050750C	1 Pc.	Vickers	HV 50	Steel	HW appro		60x60x1
HVK050800C	1 Pc.	Vickers	HV 50	Steel	HW appro		60x60x1
	1 Pc.	Vickers	HV 50	Steel	HW appro		60x60x1
HVK050850C	IPC.						



Item No.	Unit	Description	า				
			ESS TEST BI ISO 6507-3				
			HV	Material	HW*	Dimensi	ons (mm)
		HV 100					
HVK100080C	1 Pc.	Vickers	HV 100	Aluminum	HW appro	x. 80	60x60x16
HVK100110C	1 Pc.	Vickers	HV 100	Aluminum	HW appro	x. 110	60x60x16
HVK100130C	1 Pc.	Vickers	HV 100	Aluminum	HW appro	x. 130	60x60x16
HVK100170C	1 Pc.	Vickers	HV 100	Aluminum	HW appro	x. 170	60x60x16
HVK100200C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 200	60x60x16
HVK100250C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 250	60x60x16
HVK100300C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 300	60x60x16
HVK100350C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 350	60x60x16
HVK100400C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 400	60x60x16
HVK100450C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 450	60x60x16
HVK100500C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 500	60x60x16
HVK100550C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 550	60x60x16
HVK100600C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 600	60x60x16
HVK100650C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 650	60x60x16
HVK100700C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 700	60x60x16
HVK100750C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 750	60x60x16
HVK100800C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 800	60x60x16
HVK100850C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 850	60x60x16
HVK100900C	1 Pc.	Vickers	HV 100	Steel	HW appro	x. 900	60x60x16

#### Notes

Qprep



### *Rprep* Indenters



The various indenters are to be selected according to the respective test method (Brinell, Vickers, Rockwell and Knoop). The selection of QPREP indenters, test diamonds and carbide balls, which are certified according to DAkkS and/or ASTM, QATM, provides a broad test equipment portfolio for hardness testing.

ltem No.	Unit	Description		
		TEST DIAMONDS MAKRO		
		Description	Length	Ø
		with DAkkS/ASTM Certificate		
QER28000EA	1 Pc.	Test diamond Rockwell	28 mm	6.5 mm
QER28400EA	1 Pc.	Test diamond Rockwell	28 mm	3.8 mm
QEV28000EA	1 Pc.	Test diamond Vickers ≥HV0	).01 28 mm	6.5 mm
QEV28000EZ	1 Pc.	Test diamond Vickers ≥HV5 Certificate	28 mm	6.5 mm with DAkkS
QEK28000EA	1 Pc.	Test diamond Knoop	28 mm	6.5 mm

		BALL HULDERS WITH PRESSED-IN BALL - MAKRU
		Description
		with DAkkS/ASTM Certificate
QEB28010EA	1 Pc.	Ball holders with 1 mm ball, pressed-in
QEB28025EA	1 Pc.	Ball holders with 2.5 mm ball, pressed-in
QEB28050EA	1 Pc.	Ball holders with 5 mm ball, pressed-in
QEB28100EA	1 Pc.	Ball holders with 10 mm ball, pressed-in
QEB28116EA	1 Pc.	Ball holders with 1/16" ball, pressed-in
QEB28108EA	1 Pc.	Ball holders with 1/8" ball, pressed-in
QEB28104EA	1 Pc.	Ball holders with 1/4" ball, pressed-in
QEB28102EA	1 Pc.	Ball holders with 1/2" ball, pressed-in

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#### BALL HOLDERS WITH EXCHANGEABLE BALL – MAKRO

		Description
		with DAkkS/ASTM Certificate
QEB28025AA 1	Pc.	Ball holders with 2.5 mm ball - exchangeable
QEB28050AA 1	Pc.	Ball holders with 5 mm ball - exchangeable
QEB28100AA 1	Pc.	Ball holders with 10 mm ball - exchangeable
QEB28108AA 1	Pc.	Ball holders with 1/8" ball - exchangeable
QEB28104AA 1	Pc.	Ball holders with 1/4" ball - exchangeable
QEB28102AA 1	Pc.	Ball holders with 1/2" ball - exchangeable

HARDNESS TESTING

Qprep



ltem No.	Unit	Description
		CARBIDE BALLS FOR BALL HOLDERS WITH EXCHANGEABLE BALL – MAKRO
		Description
		with DAkkS/ASTM Certificate
QKG010025A	1 Pc.	Carbide balls 2.5 mm
QKG010050A	1 Pc.	Carbide balls 5 mm
QKG010100A	1 Pc.	Carbide balls 10 mm
QKG011108A	1 Pc.	Carbide balls 1/8"
QKG011104A	1 Pc.	Carbide balls 1/4"
QKG011102A	1 Pc.	Carbide balls 1/2"
		TEST DIAMONDS MIKRO

		Description
		with DAkkS/ASTM Certificate
QEV05000EA	1 Pc.	Indenter Vickers
QEK05000EA	1 Pc.	Indenter Knoop
QEB05010EA	1 Pc.	Ball holder with 1 mm ball, pressed-in
QEB05025EA	1 Pc.	Ball holder with 2.5 mm ball, pressed-in
QEB05050EA	1 Pc.	Ball holder with 5 mm ball, pressed-in

# POSTER OF HARDNESS COMPARISON TABLE Description

95016705	1 Pc.	Poster of hardness comparison table	

#### Notes



Notes	

NOTES



## Expiration dates of consumables

#### Remarks

"The listed expiration dates represent the minimum shelf life of the QATM consumables. Within this period the complete functionality of the products are guaranteed.

Reaching the expiration date does not cause a loose of the functionality of the products. Consequently, they can be used further more.

To ensure full functionality of the products, an **adequate storage** is essential. The products need to be reliably protected against humidity and temperature fluctuation.

When outside temperatures are high, delivery of the liquids of KEM 15, 20, 30, 35 and 60 is restricted. For further information please consult the data sheet.

The consumables and their packaging should not be opened unless for imminent use e.g. cut-off wheels are hygroscopic and cold mounting materials might react with oxygen).

This might influence the functionality over time.

## The expiration date starts from shipping date.

Complaints are checked by our quality management and application team.

Our general terms and conditions remain unaffected from these notes."

	Product	Expiration date
		Years
Cutting	Abrasive cut-off wheels	2
	CBN cut-off wheels	2
	Diamond blades	2
	Cup grinder	2
	Coolant	2
	Additives for coolants	2
	Filter fleece & filter bags	2
Hot Mounting	Bakelite	2
	EPO-Max	2
	EPO black	2
	Duroplast	2
	Thermoplast	2
Cold Mounting	Methacrylate z.B. KEM 15+, 20, 30, 35, 60	1
	Epoxy resin KEM 90	1
	Mounting moulds	2
	Releasing agent	2
Grinding/Polishing	Grinding wheels	2
	GALAXY Diamond grinding discs	2
	SiC grinding foils	1
	SiC grinding paper without self-adhesive back/ with foil back	2
	SiC grinding paper self-adhesiUnits	1
	SiC grinding belts	1
	Adhesive foil double-side	1
	Adhesive carrier	2
	Diamond suspensions	2
	Diamond paste	2
	Diamond spray	2
	Aluminum oxide suspensions (Alumina, Eposal)	2
	Colloidal silica	2
	Polishing cloths	2
	Polishing cloth carrier discs	1
	Magnetic foil	2
Etching	Etchants & electrolytes	1
Miscellaneous	Ethanol & Aceton	2
	Ultrasonic cleaning agents (Tickopur)	2
	Replication material Provil Novo	1

#### Safety Data Sheets



Download of Safety Data Sheets at www.qatm.com



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