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Consumables for mounting

MTAN

KEM 15 plus Pulver

KEM 15 plus

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KEM 15 plu

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KEM 50 UV

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Hot mounting powder

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Mounting

Mounting is a process used to prepare specimens for materialographic preparation and analysis. The sample to be examined is encapsulated in a solid or liquid mounting compound. After curing, the mounting compound forms a protective shell around the sample. This allows for easier handling of fragile specimens, transforms multiple specimens of different geometries into uniform shapes of the same dimensions, and provides better edge retention of the specimens.

Depending on the laboratory facilities and the requirements of the resin, different mounting methods can be used. There are hot mounting, cold mounting, and light-induced mounting.

Hot mounting



- Hot mounting is carried out in hot mounting presses at high pressures and temperatures.
- I Thermosetting mounting materials for high hardness and thermoplastic mounting materials for transparent mountings are available as hot mounting materials.
- I Hot mounting provides the best edge retention and planarity and is ideal for wet chemical etching.
- I QPREP cold mounting materials are suitable for heat- or pressure-sensitive samples.

Cold mounting



- I Cold mounting uses chemical reactions to cure the mounting material, with acrylic resins, epoxy resins, and polyester resins available.
- I The selection is based on properties such as reaction time, removal rate, and hardness.
- I Cold mounting can be used for a variety of sample materials and shapes in various sizes.

UV mounting



- I UV mounting materials consist of filler-free modified acrylic resins.
- I They are cured under UV irradiation at a narrow wavelength range and require specially designed equipment.
- I The present UV initiators absorb UV radiation for the initiation of the reaction.
- I UV mounting is the fastest method without the need for high pressures or external heat.
- I The 1-component systems used do not require mixing, result in transparent mountings, and enable safe work in the laboratory.





Selection of the mounting method

Hot mounting is necessary for:

- Plane parallel mounting of particular hard materials - Edge examination and hardness profiles (CHD, NHD & SHD)



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

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Oprep 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

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



ltem No.	Unit	Description
NEW FORMULA!		HOT MOUNTING MATERIAL EPO BLACK
95011990	lka	
95011991	5 ka	EPO BLACK
95011992	10 kg	EPO BLACK

Oprep 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
- Easy Cleaning of mould and ram due to low adhesion
- Contains mineral filler
- Hardness (Shore D): 93
- Removal rate: Very low

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

ltem 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. It is suitable for SEM examinations and electrolytic polishing.



PRODUCT ADVANTAGES

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

RECOMMENDED APPLICATIONS

- Scanning electron microscopy
- I Electrolytic polishing

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

Rprep THERMOPLAST

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



PRODUCT ADVANTAGES

- High transparencySuitable for filling up and marking
- Hardness (Shore D): 86
- Removal rate: Medium

RECOMMENDED APPLICATIONS

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

Item 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. 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

- I 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. It is suitable for general materialographic applications.



PRODUCT ADVANTAGES

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

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

ltem No.	Unit	Description
		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 RED is an all-purpose hot mounting material. It is suitable for general materialographic applications.



PRODUCT ADVANTAGES

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

RECOMMENDED APPLICATIONS

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

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

Notes

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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

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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

Notes



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-mounted specimen, consider the following:

- I The specimen must not be affected or corroded by the resin selected for cold mounting.
- The specimen must be able to withstand the peak temperature of the mounting system.
- 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 with methyl methacrylate or MMA-free as well as 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
Qprep SEM 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
Qpox 90	Mounting using vacuum, sensitive and brittle materials	Epoxy resin	approx. 16-24 h	at room temperature up to approx. 60 °C	79	high
Qpox 92	Vacuum impregnation, brittle and heat sensitive materials, porous materials	Epoxy resin	approx. 12-13 h	at room temperature up to approx. 35 °C	81	medium
NEW Qpox 94	Vacuum infiltration of porous and sensitive materials and surfaces, metal foams, ceramic substrates, samples with corrosion deposits	Epoxy resin	approx. 9 h (at room temperature), approx. 3 h (at 45 °C)	at room temperature up to 90-100 °C, in oven at 45 °C up to 140 °C	80	high
Qprep UV 50	For standard samples, soft to medium hard materials, targeted preparation	Modified methacrylate	approx. 60 s	approx. 90 °C	83	high
NEW Qprep UV 55	Mounting with lower gap formation of standard samples, soft to medium- hard materials, specimen preparation and surface inspection	Modified methacrylate	up to 10 minutes	approx. 95 °C	83	high



Gprep 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
- I Curing temperature: approx. 85-100 °C
- Curing time: approx. 25 min
- Hardness (Shore D): 85
- Removal rate: Very low

RECOMMENDED APPLICATIONS

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

ltem No.	Unit	Description
NEW		COLD MOUNTING MATERIAL KEM 15 PLUS
FORMULA!		Basis: Methyl methacrylate
		 blue, opaque 2-component system: powder + liquid (1.5:1 [Vol%])
95012019	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons: 13 ml and 20 ml
95011628	1 kg	Powder
95011630	10 kg	Powder
95011629	500 ml	Liquid
95011631	51	Liquid

Rprep KEM 20

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



PRODUCT ADVANTAGES

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

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



	ltem No.	Unit	Description
			COLD MOUNTING MATERIAL KEM 20
			Basis: Methyl methacrylate
			 feasibility of transparent mountings by means of pressure unit 2-component system: powder + liquid (2:1 [Vol%])
5	95013990	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons: 13 ml, oval
	95013939	1 kg	Powder
	95013940	5 kg	Powder
	95013941	10 kg	Powder
	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

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

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

	ltem No.	Unit	Description
			COLD MOUNTING MATERIAL KEM 30
			Basis: Methyl methacrylate
			 green, semi-transparent 2-component system: powder + liquid (2:1 [Vol%])
	95012021	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons: 13 ml, oval
	92004080	1 kg	Powder
	92004082	5 kg	Powder
	92004081	500 ml	Liquid
	92004083	11	Liquid
	92002540	2.5	Liquid





Rprep 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
- 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
		 light green, opaque 2-component system: powder + liquid (1.5:1 [Vol%])
95012022	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons: 13 ml and 20 ml
92002473	1 kg	Powder
92002474	5 kg	Powder
92002512	10 kg	Powder
92002475	500 ml	Liquid
92002476	11	Liquid
92002477	2.5 l	Liquid

Notes



Qprep SEM 5000

Qprep SEM 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 QPREP SEM 5000
		Basis: Modified methyl methacrylate
_		 copper-brown, free of blowholes by using a pressure device 2-component system: powder + liquid (20 g : 13 ml)
95004058	1 kg	Powder
95004059	500 ml	Liquid

Gprep KEM 60

QPREP KEM 60 is a universally applicable, mineral-filled, MMA-free two-component cold mounting 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

iterri NO.	Unit	Description
		COLD MOUNTING MATERIAL KEM 60
		Basis: Tetrahydrofurfuryl-2-methacrylate
		 red, MMA-free 2-component system: powder + liquid (2:0.9 [weight-%])
95014004	1 Set	1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons: 13 ml, oval
95013184	1 kg	Powder
95013185	5 kg	Powder
95013187	500 ml	Liquid

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Qpox 90

QPREP Qpox 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.

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PRODUCT ADVANTAGES

- I Good transparency
- I 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

- I Routine mounting
- Applicable for a wide range of materials
- I Target preparations
- I Vacuum infiltration of porous material surface
- 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 QPOX 90	
			Basis: Epoxy resin
			 transparent, suitable for vacuum infiltration 2-components-system: resin + hardener (2:1 [weight-%])
	95017315	1 Set	500 ml resin, 250 ml hardener 40 mixing cups, 40 mixing sticks
	92002484	500 ml	Resin
	92002485	250 ml	Hardener

Notes



Qpox 92

QPREP Qpox 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, Qpox 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
- I Low viscosity
- I Suitable for vacuum infiltration
- Curing temperature: RT to approx. 35°C
- I Curing time: 12-13 h (50% faster than Qpox 90)
- I Hardness (Shore D): 81
- Removal rate: Medium

RECOMMENDED APPLICATIONS

- I 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 QPOX 92
			Basis: Epoxy resin
			 transparent, suitable for vacuum infiltration 2-components-system: resin + hardener (4:1 [weight-%])
-	95017316	1 Set	1 l resin, 250 ml hardener 40 mixing cups, 40 mixing sticks
10	95016854	11	Resin
	95016855	250 ml	Hardener

Epoxy resins comparison chart



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Qpox 94

QPREP Qpox 94 is a low-viscosity and transparent two-component epoxy-based cold mounting resin, ideal for samples with delicate and complex geometries. It is particularly suitable for sensitive and porous surfaces as well as target preparations. With a curing time of about 9 hours Qpox 94 allows transparent and gap-free mounting and preparation on the same day.

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PRODUCT ADVANTAGES

- Excellent adhesion and very low gap formation
- Very good transparency
- Low-bubble mountings
- Low viscosity
- I Suitable for vacuum infiltration
- I Curing temperature: RT up to 45°C (T_{max} = 100°C to 140°C)
- Curing time: 9 h at RT (up to 65% faster than Qpox 90, 25% faster than Qpox 92), 3 h at 45°C
- Hardness (Shore D): 80
- Removal rate: High

RECOMMENDED APPLICATIONS

- I Low-gap and transparent preparations on the same day
- I Can be used for a wide range of materials
- I For vacuum infiltration of porous materials and material surfaces, such as metal foams, porous ceramic support material or samples with corrosion layers
- I Mountings and target preparations of assembled PCBs
- I For filigree and sensitive specimens of more complex geometries and low-hardness workpieces

	ltem No.	Unit	Description
	UP TO 65% FASTER		COLD MOUNTING MATERIAL QPOX 94
			Basis: Epoxy resin
	THAN QFOX		 transparent, suitable for vacuum infiltration 2-components-system: resin + hardener (2:1 [weight-%])
NEW	95017538	1 Set	1 l resin, 500 ml hardener 40 mixing cups, 40 mixing sticks
NEW	95017496	11	Resin
NEW	95017497	500 ml	Hardener



to Qpox 94: For optimal mounting results, an accurate mixing ratio is crucial (2:1 by weight). The pot life of approx. one hour favors the infiltration of porous materials. For optimal curing at RT, the sample can be covered with a mixing cup. The curing time can be reduced from 9-10 hours to around 2-3 hours (depending on the amount of epoxy resin used) by slight heating to approximately 45-50°C. It should be noted that heating results in an increase in peak temperature within the resin and a reduced pot life.

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 device offers a solution for mounting under vacuum.

For transparent cold mounting 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 mounting 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
- I Clear/transparent mounting possible with methyl methacrylate

RECOMMENDED APPLICATIONS

- I Infiltration device for mounting porous samples with epoxy resin (Qpox 90 / 92 / 94)
- Pressure device for mounting with methyl methacrylate (KEM 15, 20, 30, 35, 60 and Qprep SEM 5000)

	Item No.	Unit	Description
			INFILTRATION UNIT
-			 for cold mounting, pouring and hardening using vacuum recommended for Epoxy resin Qpox 90 / 92 / 94
	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)
			110 V/60 Hz on request



		Pressure Equipment Qprep Pressure for bubble free hardening of methyl methacrylates (for mounting with KEM 15, 20, 30, 35, 60 and Qprep SEM 5000) • compressed air required (approx. 6 bar)
95016569	1 Pc.	Pressure Equipment Qprep Pressure, dimensions: B340 x W340 x H255 mm

PRESSURE EQUIPMENT OPREP PRESSURE

Notes

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UV mounting

If transparent mounting of a specimen within 1-5 minutes without high heat input or pressure is desired, light-curing mounting 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



Gprep UV 50

QPREP UV 50 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 = 365 nm).



PRODUCT ADVANTAGES

- I Clear, colorless liquid with honey-like viscosity
- Very good transparency
- I 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
- I Hardness (Shore D): 83
- Removal rate: High

- Routine mounting
- I Target preparations
- I Fixation of small components

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Item No.	Unit	Description
		UV MOUNTING MATERIAL QRPEP UV 50
		Basis: Modified methacrylate
		transparent1-component system
95016840	11	All-in-one liquid



Qprep UV 55

QPREP UV 55 is a low-viscosity and light-curing, acrylic-based UV mounting resin. It is ideal for transparent routine mounting of soft to medium-hard materials. Curing is carried out with UV irradiation in the Qmount UV mounting device within 10 minutes. The special composition enables mountings with reduced gaps, which enables preparation of coated and surface-treated materials.



PRODUCT ADVANTAGES

- I Clear, colorless and low viscosity for improved flow
- Very good transparency
- Reduced gap formation (up to 70% less than QPREP UV 50)
- I Good abrasion resistance and mechanical machinability
- l 1-component-system
- No dangerous good
- I Curing temperature: ~95°C
- I Curing time: up to 10 min
- Hardness (Shore D): 83
- Removal rate: High

RECOMMENDED APPLICATIONS

- I Highly transparent routine mounting, for example
- I High sample throughput
- I Target preparation
- I Surface coated and treated materials of low to medium hardness

	ltem No.	Unit	Description		
	UP TO 70% REDUCED GAP FORMATION COMPARED TO OPREP UV 50		UV MOUNTING MATERIAL QPREP UV 55		
			Basis: Modified methacrylate		
			transparent1-component system		
NEW	95017495	11	All-in-one liquid		



to QPREP UV 55: The peak temperature reached during curing can be reduced for temperature-sensitive samples by using slightly cooled resin or layer-by-layer pouring and curing. Curing time and peak temperature may vary depending on sample size and may be lower for smaller mounting moulds. Rough and porous surfaces infiltrated via vacuum assistance due to the low viscosity of QPREP UV 55. This allows for better adhesion. QPREP UV 55 is ideal for water-based preparations and is resistant to alcohol and acids, but exposure to alcohol should be kept to a minimum.



ltem No.	Unit	Description
		COLD MOUNTING MOULDS FOR UV MOUNTING
		Polypropylene round
		 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

20



Gprep 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.

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ACCESSORIES

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

	iterrino.	OTIL	Description
			ACCESSORIES
1			
and the second second	92001715	100 Pcs.	Mixing cups, disposable, 180 ml
	92004360	1 Pc.	Silicon mixing cup, reusable
	92001717	100 Pcs.	Mixing sticks (wood)
MATAN -	92002657	100 Pcs.	Angle adapter for angled polishing, 10°
MTAN	92001716	10 Pcs.	Dosing spoon for hot and cold mounting material, 13 ml
	92001779	10 Pcs.	Dosing spoon for cold mounting material, 20 ml
and the second sec	92001781	10 Pcs.	Dosing spoon for cold mounting material, 13 ml
There was the			CLIP FOR ALIGNING THIN SAMPLES IN MOUL
	92002662	100 Pcs.	Steel
The state of the s	92002663	100 Pcs.	Plastic, transparent
	92002707	100 Pcs.	Plastic, black
	92002708	100 Pcs.	Plastic, red
	92002709	100 Pcs.	Plastic, grey
			PLASTIC MOUNTING AID
AN BRANCH	92002623	100 Pcs.	Ø 30 mm, for 4 samples, sample thickness <1 mm, blue
	92002625	100 Pcs.	Ø 30 mm, for 4 samples, sample thickness <2 mm, grey
	92002624	100 Pcs.	Ø 30 mm, for 3 samples, sample thickness <3 mm, white
IIF at -			
			TRANSPARENT MOUNTING AID
	95016787	10 Pcs.	Ø 35 mm, for 4 samples, sample thickness <1 mm
And the second second	95016788	50 Pcs.	Ø 35 mm, for 4 samples, sample thickness <1 mm
	95016789	100 Pcs.	Ø 35 mm, for 4 samples, sample thickness <1 mm
	95016790	10 Pcs.	Ø 35 mm, for 4 samples, sample thickness 1-2 mm
	95016791	50 Pcs.	Ø 35 mm, for 4 samples, sample thickness 1-2 mm
- Com	95016792	100 Pcs.	Ø 35 mm, for 4 samples, sample thickness 1-2 mm
Composition of the second	95016793	10 Pcs.	Ø 35 mm, for 3 samples, sample thickness 2-3 mm
THE LE	95016794	50 Pcs.	Ø 35 mm, for 3 samples, sample thickness 2-3 mm

95016795

95016796

95016797

95016798

100 Pcs.

10 Pcs.

50 Pcs.

100 Pcs.

IN MOULD

Ø 35 mm, for 3 samples, sample thickness 2-3 mm

Ø 35 mm, for 2 samples, sample thickness 3-4 mm

Ø 35 mm, for 2 samples, sample thickness 3-4 mm Ø 35 mm, for 2 samples, sample thickness 3-4 mm



Gprep 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
- 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
		 not suitable for light curing
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
		Silicon rubber square, beveled edge not suitable for light curing
92002509	1 Pc.	Silicon rubber square, beveled edge • not suitable for light curing 55 x 30 mm / H 22 mm
92002509 95017032	1 Pc. 5 Pcs.	Silicon rubber square, beveled edge• not suitable for light curing55 x 30 mm / H 22 mm55 x 30 mm / H 22 mm
92002509 95017032 92002510	1 Pc. 5 Pcs. 1 Pc.	Silicon rubber square, beveled edge• not suitable for light curing55 x 30 mm / H 22 mm55 x 30 mm / H 22 mm70 x 40 mm / H 22 mm
92002509 95017032 92002510 95017033	1 Pc. 5 Pcs. 1 Pc. 5 Pcs.	Silicon rubber square, beveled edge• not suitable for light curing55 x 30 mm / H 22 mm55 x 30 mm / H 22 mm70 x 40 mm / H 22 mm70 x 40 mm / H 22 mm
92002509 95017032 92002510 95017033	1 Pc. 5 Pcs. 1 Pc. 5 Pcs.	Silicon rubber square, beveled edge• not suitable for light curing55 x 30 mm / H 22 mm55 x 30 mm / H 22 mm70 x 40 mm / H 22 mm70 x 40 mm / H 22 mm
92002509 95017032 92002510 95017033	1 Pc. 5 Pcs. 1 Pc. 5 Pcs.	Silicon rubber square, beveled edge• not suitable for light curing55 x 30 mm / H 22 mm55 x 30 mm / H 22 mm70 x 40 mm / H 22 mm70 x 40 mm / H 22 mmPolypropylene round
92002509 95017032 92002510 95017033	1 Pc. 5 Pcs. 1 Pc. 5 Pcs.	Silicon rubber square, beveled edge not suitable for light curing 55 x 30 mm / H 22 mm 55 x 30 mm / H 22 mm 70 x 40 mm / H 22 mm Polypropylene round suitable for light curing with exchangeable bottom
92002509 95017032 92002510 95017033	1 Pc. 5 Pcs. 1 Pc. 5 Pcs. 5 Pcs.	Silicon rubber square, beveled edge • not suitable for light curing 55 x 30 mm / H 22 mm 55 x 30 mm / H 22 mm 70 x 40 mm / H 22 mm 70 x 40 mm / H 22 mm Polypropylene round • suitable for light curing • with exchangeable bottom Ø 25 mm / H 27 mm
92002509 95017032 92002510 95017033 95017317 95017318	1 Pc. 5 Pcs. 1 Pc. 5 Pcs. 5 Pcs. 5 Pcs. 5 Pcs.	Silicon rubber square, beveled edge• not suitable for light curing55 x 30 mm / H 22 mm55 x 30 mm / H 22 mm70 x 40 mm / H 22 mm70 x 40 mm / H 22 mmPolypropylene round• suitable for light curing• with exchangeable bottomØ 25 mm / H 27 mmØ 30 mm / H 27 mm



	ltem No.	Unit	Description
			COLD MOUNTING MOULDS
			Polyethylene round
			 not suitable for light curing with exchangeable bottom
	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
			 PTFE round, beveled edge not suitable for light curing with exchangeable bottom
	95017041	3 Pcs.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm
	95017041 95017042	3 Pcs. 3 Pcs.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm
	95017041 95017042 95017043	3 Pcs. 3 Pcs. 3 Pcs.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm
	95017041 95017042 95017043 95017044	3 Pcs. 3 Pcs. 3 Pcs. 3 Pcs.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 38 mm / H 25 mm
	95017041 95017042 95017043 95017044 92002517	3 Pcs. 3 Pcs. 3 Pcs. 3 Pcs. 1 Pc.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 38 mm / H 25 mm Ø 40 mm / H 30 mm
	95017041 95017042 95017043 95017044 92002517 95017045	3 Pcs. 3 Pcs. 3 Pcs. 3 Pcs. 1 Pc. 3 Pcs.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 38 mm / H 25 mm Ø 40 mm / H 30 mm Ø 40 mm / H 30 mm
	95017041 95017042 95017043 95017044 92002517 95017045 92002518	3 Pcs. 3 Pcs. 3 Pcs. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 38 mm / H 25 mm Ø 40 mm / H 30 mm Ø 40 mm / H 30 mm Ø 50 mm / H 30 mm
	95017041 95017042 95017043 95017044 92002517 95017045 92002518 95017046	3 Pcs. 3 Pcs. 3 Pcs. 3 Pcs. 1 Pc. 3 Pcs. 1 Pc. 3 Pcs.	 PTFE round, beveled edge not suitable for light curing with exchangeable bottom Ø 25 mm / H 23 mm Ø 30 mm / H 25 mm Ø 32 mm / H 25 mm Ø 38 mm / H 25 mm Ø 40 mm / H 30 mm Ø 40 mm / H 30 mm Ø 50 mm / H 30 mm Ø 50 mm / H 30 mm

	PTFE mould	PP mould	PE mould	Silicone rubber mould	
Mounting material	round	round	round	round	square
KEM 15 plus	0	•	•		•
KEM 20	•	••	++	0	•
KEM 30	•	••	++	•	•
KEM 35	••	••	++	•	•
Qprep SEM 5000	••	••	++	•	0
KEM 60	••	••	++	•	0
Qpox 90	0	•	++	•	•
Qpox 92	0	•	++	•	•
NEW Qpox 94	0	•	++	•	•
Qprep UV 50	•	••		•	•
NEW Qprep UV 55	•	••		•	•
••• = very well suited,	🕒 = well suited, 🧕	= limited suitable,	= not suitable		



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