

Cold mounting systems for all materialographic applications

- Short curing times
- No or low shrinkage
- High adhesion ability



Cold mounting systems developed to obtain best results

The purpose of mounting is to protect fragile or coated materials during preparation and to obtain perfect edge-retention. Mounting also allows for a safer, more convenient handling of e.g. small, sharp or irregularly shaped specimens or when the protection of layers is imperative.

Epoxy for no shrinkage – Acrylics for fast curing

Struers offers two different types of cold mounting resins, epoxy and acrylic – and your choice of resin is determined by a number of factors such as type of material, specimen characteristics, quantity of specimens, and your quality requirements.

Epoxy resins

Epoxy resins are ideal for vacuum impregnation of porous specimens, and for high edge-retention requirements. They have the lowest shrinkage of all cold mounting resins. Curing time is relatively long, but the adhesion to most materials is excellent.

Acrylic resins

Acrylics are easy-to-use resins with short curing times, very limited shrinkage and excellent mounting properties. They are well-suited for both serial mounting of irregularly shaped specimens and for routine work or single specimens. Available with and without mineral filler.

Vacuum impregnation

Certain materials like ceramics, plasma sprayed coatings and specimens for failure analysis require special care during preparation. Porosity, gaps, cracks and loose particles can easily be altered or even removed during preparation if the specimens are not mounted properly.

In these cases, vacuum impregnation is used to reinforce and protect the materials. With Struers CitoVac, impregnation is carried out quickly and efficiently. After curing, the resin reinforces the fragile materials and artefacts like pull-outs and unopened or smeared pores can be avoided.



AcryDye adds colour to your mounts for easy identification.



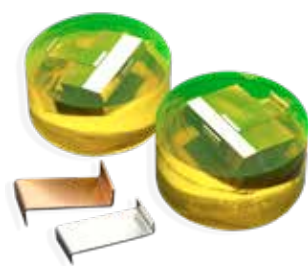
EpoDye, fluorescent dye to be mixed with the resin to allow for easy identification of pores and cracks when examining the specimen in fluorescent light.



CitoVac - for easy impregnation of fragile materials.



The MultiClips can support up to 5 small thin specimens.



Taper section angles make it much easier to measure the thickness of thin layers.



FixiForm is one of Struers' many mounting cups.



Wupty makes it easy to press out the mount out of FixiForm.

Accessories

Struers offers a large variety of mounting cups and other accessories to provide easy handling and more accurate specimen preparation.

- Mounting cups in different types and sizes
- Metal spring clips or plastic clips to hold or support small specimens
- Taper section angles for measuring of layer thickness
- Fluorescent dye for microscopic examination under fluorescent light
- Dye for acrylic resins for easy identification of specimens
- Measuring syringes for quick measurement of liquids
- Cups and stirrers
- Electric mixer for optimal mixing of epoxy components
- Wupty tool for pressing mounts out of FixiForm

Drybox – specimen drier and curing oven

To achieve more uniform mounting results, Drybox can be used to control the temperature during the curing process. Drybox acts both as a specimen drier and a curing oven.

Struers' products are subject to constant product development. Therefore, we reserve ourselves the right to introduce changes in our products without notice.

SPECIFICATIONS

Cat.no

VersoCit-2

Kit	40200089
Powder 3 kg	40200090
Liquid 1 l	40200091

ClaroCit

Kit	40200072
Powder 3 kg	40200074
Liquid 1 l	40200073

DuroCit-3

Kit	40200095
Powder 3 kg	40200081
Liquid I 1 l	40200096
Liquid II 1 l	40200097

LevoCit

Kit	40200092
Powder 3 kg	40200093
Liquid 1 l	40200094

ViaFix

Kit	40200067
Powder 2.5 kg	40200068
Liquid 1 l	40200069

CaldoFix-2

Kit	40200084
Resin 1 l	40200085
Hardener 500 ml	40200086

SpeciFix-40

Kit	40200049
Resin 1 l	40200051
Curing Agent 1 l	40200053

SpeciFix-20

Kit	40200048
Resin 1 l	40200051
Curing Agent 500 ml	40200052

EpoFix

Kit	40200029
Resin 1 l	40200030
Hardener 500 ml	40200031






ProntoFix

Kit	40200108
Resin 1 l	40200109
Hardener 500 ml	40200110
Accelerator 70 ml	40200111
Empty bottle for premixing hardener and accelerator	40300091

ACCESSORIES

Accessories and Drybox, please see separate brochures for further details.

Struers' Selection Guide – The easy way to the right choice

	ACRYLICS				
Mounting material	VersoCit-2	ClaroCit	DuroCit-3	LevoCit	ViaFix
					
Curing time	10 min. ¹⁾	20 min. ¹⁾	30 min. ¹⁾	20 min. ¹⁾	20 min. ¹⁾
Shrinkage From 1-4 (1 is best)	****	***	*	**	***
Application	For routine examination <ul style="list-style-type: none"> Routine examination of soft to medium hard materials. 	For extraordinarily clear mounts <ul style="list-style-type: none"> For universal use. Target preparation. 	Fast curing and no shrinkage <ul style="list-style-type: none"> For medium hard and hard ferrous materials and other hard materials – including ceramics, carbides etc. For specimens where protection of layers is important e.g. coated specimens. Excellent edge-retention and planeness. 	Good edge-retention and planeness <ul style="list-style-type: none"> For non-ferrous materials and soft ferrous materials. Low shrinkage. Low peak temperature. 	For vias and microvias <ul style="list-style-type: none"> Excellent for filling of microvias.
					<i>* Affected by alcohol. When using diamond products or lubricants containing alcohol, the surface will be affected and the structure of the polymer beads will appear.</i>
Mixing ratio weight recommended	Liquid: 10 parts Powder: 15 parts	Liquid: 6 parts Powder: 10 parts	Liquid I: 8 parts Liquid II: 4 parts Powder: 14 parts	Liquid: 10 parts Powder: 20 parts	Liquid: 9 parts Powder: 11 parts
Mixing ratio volume	Liquid: 1 part Powder: 2 parts	Liquid: 2 parts Powder: 5 parts	Liquid I: 10 parts Liquid II: 5 parts Powder: 15 parts	Liquid: 1 part Powder: 2 parts	Liquid: 1 part Powder: 2 parts
Mixing time	30 s	1 ½ min.	1 ½ min.	45 s	30 s
Potlife	3 min.	1 ½ min.	4 min.	1 ½ min.	2 min.
Colour	Dull yellowish, partly transparent.	Colourless, clear (extremely clear when cured under pressure).	Light yellow	Off-white	Colourless, clear (extremely clear when cured under pressure). Otherwise semi-transparent.
Can be coloured with EpoDye		X			X
Can be coloured with AcryDye	X	X	X	X	X
Peak temperature	100 °C / 212 °F	90 °C / 194 °F	138 °C / 280 °F	75 °C / 167 °F	115 °C / 239 °F
Hardness	82 Shore D	85 Shore D	85 Shore D	84 Shore D	83 Shore D

¹⁾ 30 mm dia. mount without specimen at 21 °C / 70 °F

EPOXIES

CaldoFix-2	SpeciFix-40	SpeciFix-20	EpoFix	ProntoFix Standard	ProntoFix Accelerated
					
1 ½ hour in oven at 75 °C / 167 °F ¹⁾	3 ½ hours in oven at 50 °C / 122 °F ¹⁾	8 hours ¹⁾	Approx. 12 hours ¹⁾	90 min. ²⁾	90 min. ³⁾
*	*	*	*	*	*
For all-round vacuum impregnation <ul style="list-style-type: none"> Short curing time. Low viscosity. Relatively hard after curing. 	Extremely good adhesion <ul style="list-style-type: none"> Relative fast curing time. Very clear colourless mounts. Cures in oven or Drybox. 	For vacuum impregnation of small specimens <ul style="list-style-type: none"> Ideal for small specimens. Very good adhesion. Very low curing temperature. 	For vacuum impregnation - low viscosity <ul style="list-style-type: none"> Can be used on all types of specimens. Extremely low curing temperature – Very good for heat sensitive specimens. Superior penetration of cracks and pores. Excellent adhesion. 	For mounting and preparing specimens the same day <ul style="list-style-type: none"> Suitable for vacuum impregnation. Excellent adhesion. Superior penetration of cracks and pores. 	
Resin: 25 parts Hardener: 7 parts	Resin: 2.5 parts Curing Agent: 1 part	Resin: 7 parts Curing Agent: 1 part	Resin: 25 parts Hardener: 3 parts	Resin: 20 parts Hardener: 5.3 part	Resin: 20 parts Hardener: 4.2 parts Accelerator: 1.1 parts
Resin: 31 parts Hardener: 10 parts	Resin: 10.5 parts Curing Agent: 5 part	Resin: 26 parts Curing Agent: 5 part	Resin: 15 parts Hardener: 2 parts	Resin: 20 parts Hardener: 5.3 part	Resin: 20 parts Hardener: 4.2 parts Accelerator: 1.1 parts
5 min.	3 min.	3 min.	2 min.	1 min.	
> 60 min.	> 60 min.	60 min.	30 min.	25 min.	20 min.
Clear, transparent Refractive index: ND = 1.561	Clear, transparent Refractive index: ND = 1.573	Clear, transparent Refractive index: ND = 1.573	Clear, transparent Refractive index: ND = 1.578	Transparent, Yellow	
X	X	X	X	X	
170 °C / 338 °F	100 °C / 212 °F	60 °C / 140 °F	40 °C / 104 °F	140 °C / 284 °F	150 °C / 302 °F
85 Shore D	82 Shore D	84 Shore D	78 Shore D	83 Shore D	

²⁾ 40 mm mount, 10% specimen volume, 25 °C / 73 °F ambient temperature, Covered while curing

³⁾ 30 mm mount, 10% specimen volume, 25 °C / 73 °F ambient temperature, Covered while curing

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Ensuring Certainty

With offices and affiliates in 24 countries and a presence in more than 50 countries worldwide, Struers is the world's leading materialographic solution supplier. We are dedicated to enabling our customers to ensure certainty in all aspects of materialographic preparation and testing as well as material hardness testing - wherever they are in the world. Struers offers a complete range of equipment, consumables, service and training programmes – all supported by the most comprehensive knowledge base, global applications support and a certified global service set-up.

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