



MOUNTING

Struers Mounting Consumables

No matter what your application is, you'll find a Struers mounting material that meets your every hot and cold mounting need. Easy dosing, safety, and specimen integrity are a given, as are consistently superior results that help you to achieve an efficient work process.

Hot Mounting

If you need high quality, uniform size, and short process times, our hot mounting solutions are ideal.

Simply place the specimen and mounting material in the mounting press cylinder. To ensure premium mounting performance, we encourage you to use our hot mounting materials with our mounting presses. That's because the machines are designed to control all parameters of the mounting process, such as the cooling and heating cycle and dosing. In that way, you get the most out of your investment.

Cold Mounting

Our cold mounting material protects brittle and fragile specimens during the preparation process, and delivers high quality mounts for microscopic inspection. Struers epoxy range delivers high quality impregnation of your pours specimens without compromising on speed.

Only Struers consumables are designed to get the most out of our Struers equipment.



HOT MOUNTING SELECTION GUIDE

Resin	ClaroFast	CitoFast	ConduFast
			
Material	Acrylic	Acrylic with aluminum filler	Acrylic with iron filler
Specific properties	Clear transparent	Very fast mounting. Low process times also when it is used as 'backing' for DuroFast or LevoFast	Electrically conductive
Recommended use	Clear mounts Porous specimens	Fast mounting times For soft materials	Electrolytic polishing
Type	Thermoplastic	Thermoplastic	Thermoplastic
Shrinkage From 1-3 (1 is best)	..	..	..
Hardness From 1-3 (1 is softest)	..	..	.
Removal rate	High	High	High
Process parameters*			
Heating temperature (°C)	180	180	180
Quantity (ml)	20	20	20
Heating time (min.)	4	2,5	3,5
Heating pressure (bar)	350	300	250
Cooling time (min.)	6,5	1	1.5
Cooling rate	Low	High	High
Total process time (min.)	10.5	3.5	5
Application / Specific properties	Transparent mounts. Porous specimens.** Surface electrical insulator for ConduFast	For soft materials.* Fast mounting also when used as backing	Electrolytic polishing

DuroFast	LevoFast	PolyFast	PuriFast	MultiFast
				
Epoxy with mineral filler	Melamine with mineral and glass filler	Bakelite with carbon filler	Polypropylene with wood and mineral filler	Bakelite with wood filler
Very low shrinkage. Very low removal rate	Very low shrinkage High removal rate	Very low shrinkage High removal rate	Medium shrinkage High removal rate	Medium shrinkage Medium removal rate
Excellent edge-retention for hard materials	Excellent edge-retention for soft to medium hard materials	Fast mounting process SEM examination	General used for soft to medium hard materials	Routine examination of soft to medium hard materials. Color coding
Thermosetting	Thermosetting	Thermosetting	Thermoplastic	Thermosetting
.	.	.	...	...
...	...	..	.	...
Low	High	High	High	Medium
180	180	180	150 - 180	180
20	25	20	25	25
3,5	3,5	3,5	3	3
325	250	250	250	250
2	2	1.5	2	2
High	High	High	High	High
5.5	5.5	5	5	5
For hard materials Excellent edge retention	For soft to medium hard materials. Excellent edge retention	SEM examination	Unclassified, no hazardous components For soft to medium hard materials. Perfect as backing	Routine examination of soft to medium hard materials. Suitable as backing

CUTTING
MOUNTING
GRINDING
POLISHING
VERIFICATION
ACCESSORIES

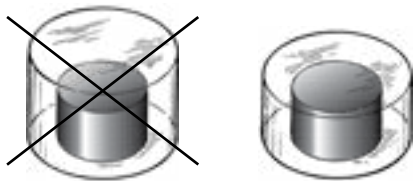
HOT MOUNTING HOW TO OPTIMIZE THE PROCESS TIME

When specimens are to be mounted in series it is recommended to optimize the heating and cooling times.

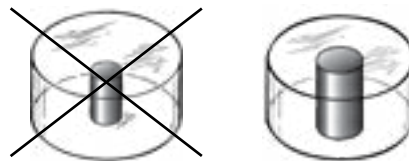
One of the factors limiting both the heating and cooling times is the relatively low heat conductivity

of the resins. An efficient way to reduce the process time is to minimize the distance the heat needs to travel through the resin. When mounting metallic pieces (with high heat conductivity), the heating and cooling times may be reduced when:

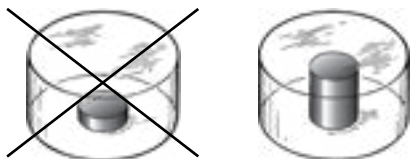
The amount of resin is optimized:



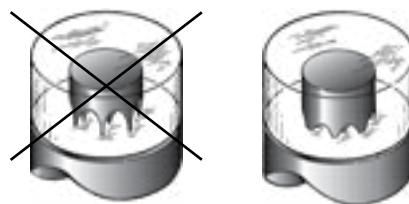
Choose smallest possible mounting cylinder:



A relatively high instead of a low specimen is mounted:



Good thermal contact between metal and ram is ensured:



When optimizing the time it should be reduced stepwise with intermediate inspection of the mount. Insufficient heating and cooling times will result in artifacts (See: "Trouble Shooting").

ConduFast and ClaroFast

For electrolytical purposes, ClaroFast, although not electrically conductive, can be used in conjunction with ConduFast. By adding a small amount of ClaroFast first, and then completing the required amount with ConduFast, a mount with a conducting body and an insulating preparation surface is formed.

DuroFast and LevoFast with PuriFast, MultiFast and CitoFast

DuroFast or LevoFast can be used with PuriFast, MultiFast or CitoFast as backing material. Add approx. 1/3 of DuroFast/LevoFast to make the

preparation surface and then complete the mount with 2/3 of the backing material. Use CitoFast for fast mounting.

Mount Release Agent

This is recommended to be applied to the mounting rams as a thin layer before the mounting process begins. This prevents the adhesive qualities of the resins from making it difficult to remove the mounts afterwards. Mount release agent, AntiStick cannot be used with PuriFast.

Distance to Cylinder Wall

The distance between the specimen and the

cylinder wall must be a minimum of 3 mm (1/8"), to avoid cracks in the resin. This is especially critical for specimens with sharp corners.

Small Specimens

Small, thin specimens can be supported during the hot mounting process by the use of Struers Fixation clips. Only metal clips should be used for hot mounting.

Clean Specimens

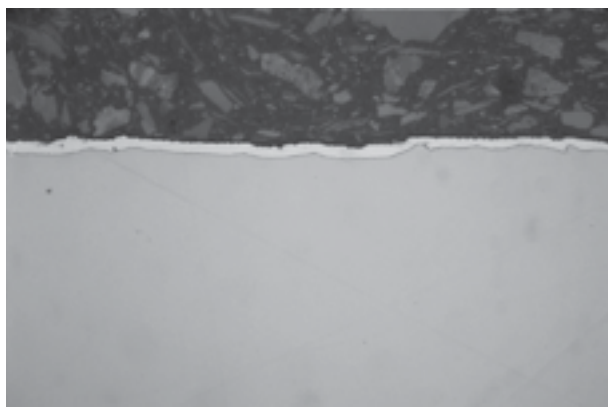
To obtain the best results the specimens must be clean, dry and free from grease. If necessary, clean with alcohol or another suitable degreasing fluid.

Preheating

For porous and/or pressure sensitive specimens, such as minerals, electronic parts etc., it is advantageous to soften the mounting material by heating, before applying pressure. Preheating is also useful when using thermoplastic materials i.e. ClaroFast and PuriFast.

We recommend applying pressure for the last minute only to protect the specimen. If the total heating time is i.e. 8 minutes, preheating should be set to 7 minutes at 0 bar and hereafter 1 minutes at 100 - 350 bar according to the properties of the specimens.

On CitoPress-15/-30, preheating is available as an automatic programme with the *Sensitive* option. In Sensitive mode, the total heating time is split into two, preheating and heating, where no force is applied during the preheat phase, only during the heating phase.



Polished zinc coating, Mounted in PolyFast 1000 x

For metal specimens, we recommend that pressure is applied only for the last minute of the total heating time. If the total heating time is 15 min, preheating should be set to 14 min and 0 bar, and heating to 1 min and 350 bar (ClaroFast).

For mounting of PCB, plastics and other poor conductors, add 1 min to the preheating time (15 min, 0 bar).

Temperature Sensitive Specimens

The temperature for the mounting process can be reduced to a minimum of 150°C for all mounting materials. This is useful when dealing with temperature sensitive materials. For PuriFast the heating time is unchanged using 150 °C or 180 °C.

For very temperature sensitive specimens, hot compression mounting should be avoided. Use Struers cold mounting resins instead.

Porous Specimens

Thermoplastic mounting material, (ClaroFast and PuriFast), penetrate into porous specimens. The best results are obtained by initially preheating the material (see Preheating).

For very porous materials, hot compression mounting should be avoided. Use of Struers epoxy cold mounting resins is recommended.

Pressure Sensitive Specimens

Thermoplastic materials, (ClaroFast and PuriFast), should be used. The best results are obtained by initially preheating the materials (see Pre-heating).

For very pressure sensitive specimens, hot compression mounting should be avoided. Use Struers cold mounting materials instead.

Specimen Removal

It is crucial that the resin and parameters are correctly matched to each individual specimen. Thermoplastic mounts can be reprocessed. Specimens mounted in thermosetting resins cannot be reprocessed. They have to be re-mounted. Damage free removal from the completed mount cannot be guaranteed.

HOT MOUNTING DATA

The heating and cooling times in the tables refer to the following conditions:

- The heating times in the tables refer to the full process time counted from the start of the process and not from when the pre-set temperature is reached. Add ½ - 1 minute to the heating time for the first mount to heat the cylinder.
- The mounting parameters are based on specimens with a volume approx. 20% of the total volume of the mount. If larger specimens are mounted, less resin should be used.
- If smaller specimens or specimens with low heat conductivity are mounted, the heating and cooling times should be increased. It might also be necessary to increase the pressure to avoid pores in the cured mount.
- A higher pressure is recommended with ClaroFast to avoid “cotton ball” effect.
- The amount of mounting material in the tables has been adjusted to result in a final height of the mounts of approx. 20 mm (0.8").
- If several mounting materials are combined in one mount, use the process parameters for the mounting materials with the longest times. When using CitoFast as ‘backing’, use the CitoFast process parameters. For several, or very complicated specimens, add one min. of heating time.
- The mounting parameters are based on using the Citopress 5/15/30.

Cylinder dia.	Resin		Heating			Cooling		Time
25 mm / 1"	Type	Quantity	Time	Temp.	Pressure	Time	Rate	Total time
		[ml]	[min]	[°C]	[bar]	[min]		[min]
	ClaroFast	20	4	180	350	6	Low	9.5
	CitoFast	15	2	180	300	1	High	3
	ConduFast	15	3	180	300	1	High	4
	DuroFast	15	3	180	325	2	High	5
	LevoFast	20	3	180	350	1	High	4
	PolyFast	15	3.5	180	325	1.5	High	5
	PuriFast	20	3	150 - 180	300	2	High	5
	MultiFast	20	3	180	300	2	High	5

Cylinder dia.	Resin		Heating			Cooling		Time
30 mm	Type	Quantity	Time	Temp.	Pressure	Time	Rate	Total time
		[ml]	[min]	[°C]	[bar]	[min]		[min]
	ClaroFast	20	4	180	350	6.5	Low	10.5
	CitoFast	25	2.5	180	300	1	High	3.5
	ConduFast	20	3.5	180	250	1.5	High	5
	DuroFast	20	3.5	180	325	2	High	5.5
	LevoFast	25	3.5	180	250	2	High	5.5
	PolyFast	20	3.5	180	250	1.5	High	5
	PuriFast	25	3	150 - 180	250	2	High	5
	MultiFast	25	3	180	250	2	High	5

Cylinder dia.	Resin		Heating			Cooling		Time
	Type	Quantity	Time	Temp.	Pressure	Time	Rate	Total time
		[ml]	[min]	[°C]	[bar]	[min]		[min]
1½"	ClaroFast	20	4	180	350	6.5	Low	10.5
	CitoFast	25	2.5	180	300	1	High	3.5
	ConduFast	20	3.5	180	250	1.5	High	5
	DuroFast	20	4	180	325	2	High	6
	LevoFast	25	3.5	180	250	2	High	5.5
	PolyFast	20	3.5	180	250	1.5	High	5
	PuriFast	25	3.5	150 - 180	250	2	High	5.5
	MultiFast	25	3.5	180	250	2	High	5.5

Cylinder dia.	Resin		Heating			Cooling		Time
	Type	Quantity	Time	Temp.	Pressure	Time	Rate	Total time
		[ml]	[min]	[°C]	[bar]	[min]		[min]
1½"	ClaroFast	30	4	180	350	7	Low	11
	CitoFast	45	3	180	300	1.5	High	4.5
	ConduFast	35	3.5	180	250	2	High	5.5
	DuroFast	35	4.5	180	350	2.5	High	7
	LevoFast	40	4.5	180	250	2	High	6.5
	PolyFast	30	4.5	180	250	2	High	6.5
	PuriFast	40	4.5	150 - 180	250	2.5	High	7
	MultiFast	40	4.5	180	250	2.5	High	7

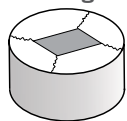
Cylinder dia.	Resin		Heating			Cooling		Time
	Type	Quantity	Time	Temp.	Pressure	Time	Rate	Total time
		[ml]	[min]	[°C]	[bar]	[min]		[min]
40 mm	ClaroFast	35	4	180	350	6.5	Low	10.5
	CitoFast	45	3	180	300	1.5	High	4.5
	ConduFast	40	3.5	180	250	2	High	5.5
	DuroFast	40	4.5	180	350	2.5	High	7
	LevoFast	50	5	180	250	2	High	7
	PolyFast	35	4	180	250	2	High	6
	PuriFast	45	4	150 - 180	250	2.5	High	6.5
	MultiFast	45	4	180	250	2.5	High	6.5

Cylinder dia.	Resin		Heating			Cooling		Time
	Type	Quantity	Time	Temp.	Pressure	Time	Rate	Total time
		[ml]	[min]	[°C]	[bar]	[min]		[min]
50 mm / 2"	ClaroFast	55	5	180	250	8.5	Low	13.5
	CitoFast	65	3.5	180	250	2	High	5.5
	ConduFast	65	4	180	250	2	High	6
	DuroFast	70	5.5	180	250	3	High	8.5
	LevoFast	75	6	180	250	3	High	9
	PolyFast	55	5.5	180	250	2	High	7.5
	PuriFast	70	6	150 - 180	250	4	High	10
	MultiFast	70	6	180	250	4	High	10

HOT MOUNTING TROUBLE SHOOTING GUIDE

General Problems

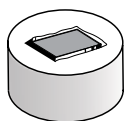
Radial Cracking



Cause: Insufficient distance between specimen edge/corner and cylinder wall, or specimen has sharp corners

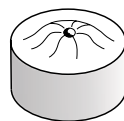
Solution: Increase cylinder diameter or reduce specimen size. The distance between the specimen and the cylinder wall must be a minimum of 3 mm to avoid cracks in the resin. This is especially critical for specimens with sharp corners.

Shrinkage



Cause: Incorrect choice of resin.
Solution: Re-mount a new specimen using a resin with a lower linear shrinkage value.

Blistering

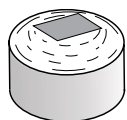


Cause: Insufficient heating time.
Solution: Increase heating time, or increase process temperature.

Cause: Overcured surface.
Solution: Decrease process temperature.

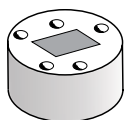
Cause: Entrapped gas within mount.
Solution: Preheat resin.

Bulging



Cause: Insufficient cooling.
Solution: Increase cooling time.

Porosity



Cause: Excessive temperature.
Solution: Reduce process temperature.

Voiding within large mounts

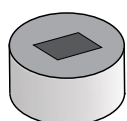


Cause: Insufficient heating time.
Solution: Increase heating time.

Cause: Excessive temperature.
Solution: Reduce process temperature.

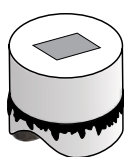
Cause: Insufficient force/pressure.
Increase mounting force/pressure.

Dull Surface Finish



Cause: Insufficient heating time.
Solution: Increase heating time.

Adhesion between mount and rams



Cause: Insufficient application of mould release agent. Except for PuriFast. Release agent cannot be used with PuriFast.

Solution: Apply mould release agent. This must always be applied to the mounting rams as a thin layer before the mounting process begins. This prevents the resins from sticking to the rams and makes it easier to remove the mounts afterwards.

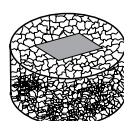
Cause: Insufficient heating time.

Solution: Increase heating time.

Cause: Excessive force/pressure.

Solution: Decrease mounting force/pressure.

Individual Grains Visible on Mount*



Cause: Resin has cured without force/pressure.
Solution: Increase force/pressure during heating cycle.

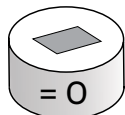
Cause: Insufficient heating time.
Solution: Increase the heating time and/or temperature.

*Thermosetting resins only

** For PuriFast are the individual grains always visible.

ConduFast Problems

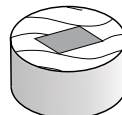
Lack of conductivity



Cause: No contact with specimen due to use of an excessive amount of ClaroFast, (refer to Helpful Hints).
Solution: Re-mount a new specimen using a smaller amount of ClaroFast than before.

Cause: Insufficient heating time
Solution: Reinsert the mount in the press and reprocess using an increased heating time.

Metallic particles in resin removed during the electrolytic process

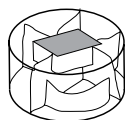


Cause: Insufficient amount of ClaroFast, (refer to Helpful Hints).
Solution: Re-mount a new specimen using a larger amount of ClaroFast.

Cause: Excessive grinding time.
Solution: Re-mount with a new specimen.

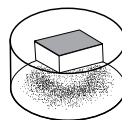
ClaroFast Problems

Internal cracking



Cause: Excessive cooling rate.
Solution: Reduce the cooling rate

"Cottonball" effect in centre of mount



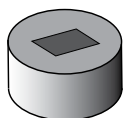
Cause: Excessive cooling rate.
Solution: Reduce the cooling rate.

Cause: Insufficient heating time.
Solution: Reduce the physical height of the mount, lower the process temperature and increase the heating time.

Cause: Moist resin.
Solution: Dry the resin by exposing the open container to 30-70°C for 2 hours.

LevoFast Problems

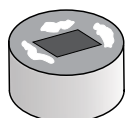
The mounts turn dark after preparation



Cause: Insufficient heating time
Solution: Increase heating time and/or temperature

PolyFast and MultiFast Problems

Parts of mount become light or colourless on contact with alcohol

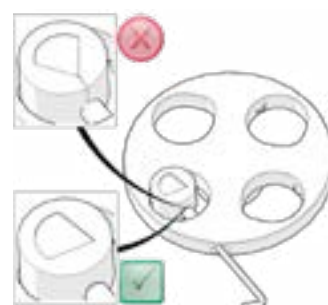


Cause: Insufficient heating time.
Solution: Increase heating time and/or temperature

PuriFast problem

Cracking specimens when clamping in specimen holder

Cause: Specimen clamped with too much force.
Solution: Use max. 1.5 N or tighten the screw until it touches the mount and then turn the Allen key 2 sides (120 °) Make attention not to have a sharp edge on the specimen where the screw is clamped into the mount.
 If a PuriFast mount cracks it can be reprocessed to obtain a perfect mount.



COLD MOUNTING SELECTION GUIDE FOR ACRYLICS

Material	VersoCit-2	ClaroCit
		
Curing time	10 min.	20 min.
Shrinkage from 1-4 (1 is best)	****	***
Application	For routine examination • Routine examination of soft to medium hard materials	For extraordinarily clear mounts • For universal use • Target preparation
Mixing ratio weight recommended	Liquid: 2 parts Powder: 3 parts	Liquid: 6 parts Powder: 10 parts
Mixing ratio volume	Liquid: 1 part Powder: 2 parts	Liquid: 2 parts Powder: 5 parts
Mixing time	30 s	1 ½ min.
Potlife	3 min.	1 ½ min.
Colour	Dull yellowish, partly transparent	Colourless, clear (extremely clear when cured under pressure)
Can be coloured with EpoDye		X
Peak temperature	100 °C / 212 °F	90 °C / 194 °F
Hardness	82 Shore D	85 Shore D

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

DuroCit-3	LevoCit	ViaFix
		
30 min.	20 min.	20 min.
*	**	***
Fast curing and no shrinkage • For medium hard and hard ferrous metals and other hard materials – including ceramics, carbides etc. • For specimens where protection of layers is important e.g. coated specimens • Excellent edgeretention and planeness	Good edge-retention and planeness • For non-ferrous metals and soft ferrous metals • Low shrinkage • Low peak temperature	For vias and microvias • 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>
Liquid I: 8 parts Liquid II: 4 parts Powder: 14 parts	Liquid: 1 part Powder: 2 parts	Liquid: 9 parts Powder: 11 parts
Liquid I: 10 parts Liquid II: 5 parts Powder: 15 parts	Liquid: 1 part Powder: 2 parts	Liquid: 1 part Powder: 2 parts
1 ½ min.	45 s	30 s
4 min.	1 ½ min.	2 min.
Light yellow	Off-white	Colourless, clear (extremely clear when cured under pressure). Otherwise semi-transparent
		X
138 °C / 280 °F	75 °C / 167 °F	115 °C / 239 °F
85 Shore D	84 Shore D	83 Shore D

COLD MOUNTING SELECTION GUIDE FOR EPOXIES

Material	CaldoFix-2	SpeciFix-40
		
Curing time	1 ½ hour in oven at 75 °C / 167 °F ¹⁾	3 ½ hours in oven at 50 °C / 122 °F ¹⁾
Shrinkage from 1-4 (1 is best)	*	*
Application	For all-round vacuum impregnation • Short curing time • Low viscosity • Relatively hard after curing	Extremely good adhesion • Relative fast curing time • Very clear colourless mounts • Cures in oven or Drybox
Mixing ratio weight recommended	Resin: 25 parts Hardener: 7 parts	Resin: 2.5 parts Curing Agent: 1 parts
Mixing ratio volume	Resin: 31 parts Hardener: 10 parts	Resin: 10.5 parts Curing Agent: 5 part
Mixing time	5 min.	3 min.
Potlife	> 60 min.	> 60 min.
Colour	Clear, transparent Refractive index: ND = 1.561	Clear, transparent Refractive index: ND = 1.573
Can be coloured with EpoDye	X	X
Peak temperature	170 °C / 338 °F	100 °C / 212 °F
Hardness	85 Shore D	82 Shore D

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

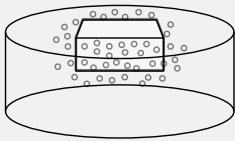
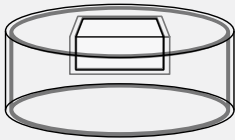
* 40 mm mount, 10% specimen volume, 25 °C / 73 °F ambient temperature, Covered while curing

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

EpoFix	ProntoFix Standard	ProntoFix Accelerated
		
Approx. 12 hours	90 min. *	90 min. **
*		*
For vacuum impregnation - low viscosity • 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 • Suitable for vacuum impregnation • Excellent adhesion • Superior penetration of cracks and pores	DIAMETER OF CUP (mm) (") Ø25 Ø1.00 Ø30 Ø1.25 Ø40 Ø1.50 TEMPERATURE IN LAB (°C) (°F) <23 <73.4 23-27 73.4-80.6 >27 >80.6 RECOMMENDATIONS Curing not possible in less than 4 hours Accelerated system Standard system ***
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: 15 parts Hardener: 2 parts	Resin: 20 parts Hardener: 5.3 part	Resin: 20 parts Hardener: 4.2 parts Accelerator: 1.1 parts
2 min.		1 min.
30 min.	25 min.	20 min.
Clear, transparent Refractive index: ND = 1.578		Transparent, Yellow
X		X
40 °C / 104 °F	140 °C / 284 °F	150 °C / 302 °F
78 Shore D		83 Shore D

*** Use the matrix to find out if the accelerator is recommended. For example if you are mounting with 40 mm cups and the room temperature is between 23-27°, it is recommended to use the ProntoFix accelerator.

COLD MOUNTING TROUBLE SHOOTING GUIDE

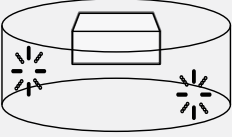
Problem	Cause	Solution
Air bubbles along the sides of the specimen  The system creates too many bubbles – generation of excessive heat	Lab temperature > 23°C	- Uncover the mount during curing - Use Struers DryBox to increase airflow - Use a smaller amount of mounting material - Cool down mounting material during mixing - If Accelerator is used try to use standard system
	Specimen/ProntoFix volume ratio < 20% < 10% for metallic specimen (Too small specimen)	- Uncover the mounting cup - Use Struers DryBox to increase airflow - Pour less ProntoFix in the mounting cup - If Accelerator is used try to use standard system
	The mount is less than 5mm from the top of the mounting cup	- Uncover during curing - Use Struers DryBox to increase airflow
	Diameter 50mm	- Fill up only half of the mounting cup - If you need a 20mm tall mount, cure in two steps - Uncover while curing - Use a smaller mounting cup - Use Struers DryBox to increase airflow - If Accelerator is used try to use standard system
	Insufficient degreasing of specimen	Clean and degrease specimens prior to mounting
	Too active stirring of mixture	Stir without introducing air into the mixture
Problem	Cause	Solution
High shrinkage 	Too high temperature during curing	Use Struers DryBox to increase airflow
	Insufficient degreasing of specimen	Clean and degrease specimens prior to mounting
	Insufficient mixing of resin and hardener	Stir mixture thoroughly
	Too large volume of mixture or too long time after stirring before pouring	Mix smaller volumes and pour over specimens immediately after stirring

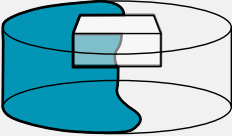
HOW TO COLD MOUNT

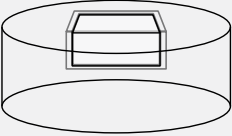
Some prerequisites have to be taken into account before

READ MORE



Problem	Cause	Solution
Sticky or rubbery surface  The system cures too slowly	Lab temperature < 23°C	• Fill up the mounting cup sufficiently • Use a bigger mounting cup • Use the Struers DryBox to increase temperature • If the standard hardener is used, try to use the Accelerator to decrease curing time
	Specimen/ProntoFix volume ratio > 20% > 10% for metallic specimen (Too big specimen)	• Use a bigger mounting cup • Reduce the size of the specimen • Use the Struers DryBox to increase temperature • If the standard hardener is used, try to use the Accelerator to decrease curing time
	The mount is more than 5mm from the top of the mounting cup (Too low mount)	• Use the Struers DryBox to increase temperature • If the standard hardener is used, try to use the Accelerator to decrease curing time
	Mounting cup diameter 25mm	• Use a Drybox to increase temperature • Use a bigger mounting cup • If the standard hardener is used, try to use the Accelerator to decrease curing time

Problem	Cause	Solution
Indraft/suction at the bottom of the specimen 	Too high temperature during curing	• Use Struers DryBox to increase airflow
	Specimen/ProntoFix volume ratio < 20% < 10% for metallic specimen (Too small specimen)	• Use adequate mounting cup or mount in layers of around 10mm per layer. Wait until the first layer is cured and then cast the next layer

Problem	Cause	Solution
Gap between ProntoFix and specimen 	Too high temperature during curing	• Use Struers DryBox to increase airflow
	Insufficient degreasing of specimen	• Clean and degrease specimens prior to mounting
	Specimen/ProntoFix volume ratio < 20% < 10% for metallic specimen (Too small specimen)	• Use Struers DryBox to increase airflow
	Too much hardener in relation to resin	• Mix resin and hardener in the correct ratio



ClaroFast



LevoFast



PuriFast Natural, Red and Green Color

Hot Mounting

ClaroFast

40100055 Clear transparent acrylic hot mounting resin. Thermoplastic.

1 kg

40100054 7.5 kg

40100053 25 kg

CitoFast

40100068 For soft materials or to reduce process time especially as backing material for LevoFast or DuroFast

1 kg

40100069 7.5 kg

ConduFast

40100039 Acrylic hot mounting resin with iron filler. Thermoplastic.

1 kg

DuroFast

40100044 Black epoxy hot mounting resin with mineral filler, for edge-retention and planeness of hard materials. Thermosetting

1 kg

40100045 7.5 kg

LevoFast

40100057 Light yellow melamine hot mounting resin with mineral and glass filler. Thermosetting

1 kg

40100058 7.5 kg

PolyFast

40100036 Black bakelite hot mounting resin with carbon filler. Thermosetting

1 kg

40100037 7.5 kg

MultiFast Black

40100064 Black bakelite hot mounting resin with wood filler. Thermosetting.

2.5 kg

40100065 7.5 kg

MultiFast Black

40100066	25 kg
40100067	75 kg

MultiFast Green

40100078	Green bakelite hot mounting resin with wood filler. Thermosetting. 2.5 kg
40100079	7.5 kg
40100080	25 kg
40100081	75 kg

MultiFast Red

40100074	Red bakelite hot mounting resin with wood filler. Thermosetting 2.5 kg
40100075	7.5 kg
40100076	25 kg
40100077	75 kg

PuriFast

40100082	PuriFast Dust-free environmentally friendly hot mounting material. Polypropylene with wood and mineral filler. Thermoplastic. Natural color. 2.5 kg
40100083	7.5 kg
40100084	30 kg (2x 15 kg)
40100085	90 kg (6x 15 kg)
40100086	PuriFast Green Dust-free environmentally friendly hot mounting material. Polypropylene with wood and mineral filler. Thermoplastic. Green. 2.5 kg
40100087	7.5 kg
40100088	30 kg (2x 15 kg)
40100089	90 kg (6x 15 kg)
40100090	PuriFast Red Dust-free environmentally friendly hot mounting material. Polypropylene with wood and mineral filler. Thermoplastic. Red. 2.5 kg
40100091	7.5 kg
40100092	30 kg (2x 15 kg)
40100093	90 kg (6x 15 kg)

Others

40300043	AntiStick Mould release agent. Stearate powder in applicator 8 g
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*** Hazardous goods fee per shipment

Find Safety Data Sheets (SDS) on [struers.com](https://www.struers.com)

Durocit-3 Kit



ProntoFix

Cold Mounting

ProntoFix

40200108***

ProntoFix Kit

Epoxy cold mounting system for mounting and preparing within the same day. Curing at room temperature. No shrinkage, especially suited for vacuum impregnation. Transparent

1 l resin, 275 ml hardener and required consumables

40200109

ProntoFix Resin

To be mixed with ProntoFix Hardener. 1 l resin corresponds to 275 ml hardener. If curing time with the ProntoFix Hardener is too long the ProntoFix Accelerator can be added. 1.3 l Resin corresponds to 275 ml hardener plus 70 ml accelerator

1 l

40200110***

ProntoFix Hardener

To be mixed with ProntoFix Resin. 500 ml hardener corresponds to 1.8 l resin
500 ml

40200111***

ProntoFix Accelerator

To be mixed with ProntoFix Resin and ProntoFix Hardener. To accelerate the ProntoFix system if curing time with the ProntoFix Hardener is too long. 70 ml accelerator must be mixed with 275 ml ProntoFix Hardener. The mixture corresponds to 1.3 l ProntoFix Resin. Empty bottle for premixing Hardener and Accelerator is available

70 ml

EpoFix

40200029***

EpoFix Kit

Epoxy cold mounting system curing at room temperature in about 12 hours, with no shrinkage, especially suited for vacuum impregnation. Transparent

1 l resin, 130 ml hardener and required consumables

40200030

EpoFix Resin

To be mixed with EpoFix Hardener. 1 l resin corresponds to 130 ml hardener
1 l

40200031***

EpoFix Hardener

To be mixed with EpoFix Resin. 500 ml hardener corresponds to 4 l resin
500 ml

SpeciFix

40200049***

SpeciFix-40 Kit

Epoxy cold mounting system curing at elevated temperature (40-60 °C) in about 3.5 hours, with very low shrinkage, suitable for vacuum impregnation. Transparent

1 l resin, 500 ml curing agent and required consumables

*** Hazardous goods fee per shipment

Find Safety Data Sheets (SDS) on [struers.com](https://www.struers.com)**SpeciFix**

40200051 **SpeciFix Resin**
To be mixed with Specifix-40 Curing Agent. 1 l resin corresponds to 500 ml Specifix-40 Curing Agent
1 l

40200053*** **SpeciFix-40 Curing Agent**
To be mixed with Specifix Resin. 1 l curing agent corresponds to 2 l resin
1 l

CaldoFix

40200084*** **CaldoFix-2 Kit**
Epoxy cold mounting system, curing within 1½ hours when heated to 75 °C / 167 °F. Very low shrinkage, suitable for vacuum impregnation. Transparent
1 l resin, 325 ml hardener and required consumables

40200085 **CaldoFix-2 Resin**
To be mixed with CaldoFix-2 Hardener. 1 l resin corresponds to 325 ml hardener
1 l

40200086*** **CaldoFix-2 Hardener**
To be mixed with CaldoFix-2 Resin. 500 ml hardener corresponds to 1.5 liter resin
500 ml

ClaroCit

40200072*** **ClaroCit Kit**
Acrylic cold mounting system for universal use. Provides extremely clear, transparent mounts (especially when cured under pressure)
800 g powder, 500 ml liquid and required consumables

40200074 **ClaroCit Powder**
To be mixed with ClaroCit liquid. 3 kg powder corresponds to 1.9 l liquid
3 kg

40200073*** **ClaroCit Liquid**
To be mixed with ClaroCit Powder. 1 l liquid corresponds to 1.6 kg powder
1 l

DuroCit

40200095*** **DuroCit-3 Kit**
Acrylic cold mounting system with mineral filler. For excellent edge-retention
570 g powder, 300 ml liquid I, 150 ml liquid II and required consumables

40200081 **DuroCit Powder**
To be mixed with DuroCit Liquid I and II. 3 kg Powder corresponds to 1.6 l Liquid I and 0.8 l Liquid II
3 kg

40200096*** **DuroCit-3 Liquid I**
To be mixed with DuroCit Powder and DuroCit-3 Liquid II. 1 l Liquid I corresponds to 1.9 kg powder and 0.5 l Liquid II
1 l

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DuroCit

- 40200097*** **DuroCit-3 Liquid II**
To be mixed with DuroCit Powder and DuroCit-3 Liquid I. 1 l Liquid II corresponds to 3.8 kg powder and 2 l Liquid I
1 l

LevoCit

- 40200092*** **LevoCit Kit**
Acrylic cold mounting resin with filler optimised for non-ferrous and soft ferrous metals
600 g powder, 300 ml liquid and required consumables
- 40200093 **LevoCit Powder**
To be mixed with LevoCit Liquid. 3 kg powder corresponds to 1.5 l Liquid
3 kg
- 40200094*** **LevoCit Liquid**
To be mixed with LevoCit Powder. 1 l liquid corresponds to 2 kg powder
1 l

VersoCit-2

- 40200089 **VersoCit-2 Kit**
Acrylic cold mounting system for routine examination of soft to medium hard materials
750 g powder, 500 ml liquid and required consumables
- 40200090 **VersoCit-2 Powder**
To be mixed with VersoCit-2 Liquid. 3 kg powder corresponds to 2 l liquid
3 kg
- 40200091 **VersoCit-2 Liquid**
To be mixed with VersoCit-2 Powder. 1 l liquid corresponds to 1.5 kg powder
1 l

ViaFix

- 40200067*** **ViaFix Kit**
Acrylic cold mounting system for filling of microvias and pores. The clearest mount is obtained by using a pressure chamber
570 g powder, 500 ml liquid and required consumables
- 40200068 **ViaFix Powder**
To be mixed with ViaFix Liquid. 2.5 kg powder corresponds to 2.3 l liquid
2.5 kg
- 40200069*** **ViaFix Liquid**
To be mixed with ViaFix Powder. 1 l liquid corresponds to 1.1 kg powder
1 l



FixiForm



FlexiForm



SeriForm

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ACCESSORIES

FixiForm

40300085	Two part polypropylene mounting cup for all Struers cold mounting materials. 25 mm / 1" dia. 10 pcs.
40300086	30 mm dia. 10 pcs.
40300087	1¼" dia. 10 pcs.
40300088	1½" dia. 10 pcs.
40300089	40 mm dia. 10 pcs.
40300090	50 mm / 2" dia. 10 pcs.

Flexiform

40300093	Flexible silicone rubber mounting cup for ClaroCit, DuroCit, VersoCit-2, LevoCit and ViaFix 25 mm dia. 5 pcs.
40300094	30 mm dia. 5 pcs.
40300095	1¼" dia. 5 pcs.
40300096	1½" dia. 5 pcs.
40300092	40 mm dia. 5 pcs.
40300082	Silicone rubber mounting cup for mounting to be used especially with acrylic cold mounting resins with which it can be reused many times. It can also be used with epoxy resins. Mounts fit to specimen holder MAXDI, 02606920 68 x 37 x 35 mm. 3 pcs.
40300083	Silicone rubber mounting cup for mounting to be used especially with acrylic cold mounting resins with which it can be reused many times. It can also be used with epoxy resins. Mounts fit to specimen holder MAXOT, 02606922 90 x 50 x 35 mm. 3 pcs.
40300084	Silicone rubber mounting cup for mounting to be used especially with acrylic cold mounting resins with which it can be reused many times. It can also be used with epoxy resins. 120 x 60 x 45 mm. 2 pcs.

Seriform

40300007	Two parts polypropylene mounting cup with parallel sides for ClaroCit, VersoCit-2 and ViaFix 25 mm dia. 10 pcs.
40300008	30 mm dia. 10 pcs.
40300009	40 mm dia. 5 pcs.



MultiClips



Fixation Clips



Taper section angle

Others

40300012	Flangeform Mounting cup with flange. For AccuStop 30 30 mm dia. 3 pcs.
40300023	PCB-Coupon Mould Mould for mounting PCB-coupons. Consists of a hard part and a soft part (40300024) 1 pcs.
40300024	Mould for mounting PCB-coupons. Replacement soft part for 40300023 1 pcs.
40300027	MultiClips Multiple plastic clip for holding up to 5 small and thin specimens when mounting 50 pcs.
40300026	Fixation Clips Metal spring clip for holding small and thin specimens when mounting 6 mm dia. 100 pcs.
40300025	9 mm dia. 100 pcs.
40300070	Taper Section Angle, Aluminium Aluminium angle for mounting of taper sections 50 pcs.
40300071	Taper Section Angle, Copper Copper angle for mounting of taper sections 50 pcs.
40300069	Taper Section Angle, Steel Steel angle for mounting of taper sections 50 pcs.
40300091	ProntoFix Empty Bottle Empty bottle for premixing ProntoFix Hardener and ProntoFix Accelerator 1 bottle 500 ml, 1 label
40300080	Consumables Kit Disposable consumables for CitoVac 100 dispensing tubes and one chamber protector
40300030	Consumables for Epovac 80 polyethylene tubes, 80 mixing cups, 80 stirrers and 2 rubber plugs
40300032	For mixing of cold mounting systems 400 mixing cups and 400 stirrers
05696101	Mixer for mixing of Epoxy For optimal mixing of cold mounting epoxies 1 mixer and 1 disposable propeller



EpoDye

CUTTING

MOUNTING

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Others

40300072	Disposable Propeller To be used with Struers Mixer (05696101) 20 pcs.
40300047	Disposable Syringes Syringes for measuring of epoxy resins and hardeners 5 ml. 100 pcs.
40300048	10 ml. 100 pcs.
40300049	20 ml. 50 pcs.
40300002	EpoDye Fluorescent dye for use with EpoFix, ProntoFix, Specifix, CaldoFix, ClaroCit and ViaFix. Special filters for microscope required. 20 g
40300076	Silicone Oil Silicone release agent 100 ml

Clamping Tools

06316904	Pinch-reduction clamping tool Tool that reduces pinching of the cut-off wheel when cutting workpieces with internal stress. Complete set with two jaw blocks (left+right), back stops and spanners For 10 mm T-slots
06316903	For 12 mm T-slots
05046912	Chain Spanner For clamping irregularly shaped workpieces. Complete with anchor block and operating key For 12 mm T-slots



EasyDoser

Hot Mounting

Dosing Units for Hot Mounting

05796902	EasyDoser Manual dosing unit for hot mounting presses. For Struers 1 kg hot mounting resins
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Wupty

Cold Mounting

Cold Mounting Accessories

05696901	Wupty Tool for pressing mounts out of FixiForm. Wupty can only be used with FixiForm, as we use the handles to secure it while pressing the mount out
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