

# Hot Mounting



A complete range of resins for high preparation quality, uniform size and shape, and short process times



- Transparent mounts with a clear sight to all details
- Porous specimens
- Electrolytic polishing
- Superior edge retention and optimal planeness
- Examination in scanning electron microscope (SEM)
- Color coding
- Fast mounting
- Routine examination of uncomplicated specimens

# Hot Mounting

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.

Hot mounting is ideal for large numbers of specimens coming to the lab successively. The resulting mounts will be of high quality, uniform size and shape, and require a short process time<sup>1</sup>.

Hot mounting is carried out using a mounting press where the specimen is placed in a mounting cylinder together with the appropriate mounting resin. Struers offers mounting presses for every purpose – from semi-automatic presses for mounting of only a few specimens to fully automatic, dual cylinder presses for high throughput.

<sup>1</sup> Cold mounting is suitable for a large series of specimens coming to the lab simultaneously, and also for single specimens. Please see separate brochure.

*CitoPress. A line of hot mounting presses for every purpose*



*ClaroFast gives a clear sight to all specimen details*

## A clear sight to all specimen details

For certain materials you need to view the specimen during preparation, for example when grinding down to a certain point of the specimen. ClaroFast gives you transparent mounts with a clear sight to all specimen details.

## Porous specimens

Certain materials like ceramics, plasma sprayed coatings or 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. Use ClaroFast for careful preparation of porous materials.

## Electrolytic polishing

Electrolytic polishing requires an electrically conductive resin. ConduFast contains iron powder filler for optimal conduction.

## Superior edge retention

Excellent edge retention is often a requirement when you need to examine the edge of a specimen and when the protection of layers is essential. DuroFast offers excellent edge-retention for hard materials while LevoFast is excellent for soft to medium hard materials. IsoFast contains glass filler only, and is used for a good edge-retention for hard materials and to avoid that mineral filler disturb the preparation result.

## Examination in SEM

Low shrinkage and conductivity are necessary when scanning in electronic microscope (SEM). PolyFast is a perfect resin



*ConduFast is excellent for electrolytic polishing*



*IsoFast with glass filler*



*DuroFast offers excellent edgeretention for hard materials*

for SEM as this resin has a low shrinkage and carbon filler to secure the conductivity.

## Color coding

Color coding gives easier handling and more accurate identification of mounted specimen preparation. MultiFast is available in four colors.

## Fast and easy routine examination

When there are no specific application requirements, speed or easy handling will often be in focus. PolyFast in combination with CitoPress is the fastest way to mounting (go to page 4 for more information). MultiFast is suitable for routine examination of soft to medium hard materials while Pre-Mount is for serial mounting of uncomplicated specimens.

When using the more expensive IsoFast, DuroFast and LevoFast, a substantial cost saving can be made by adding only a small amount of the desired resin to form the preparation surface, and then completing the required amount with the less expensive MultiFast.



*MultiFast is for routine examination of soft to medium hard materials*

# Struers' Selection Guide

## The easy way to the right choice

### Selection Guide

One of the main focus areas of hot mounting is the application area. To make your choice easier, we have designed a selection guide based on the application area for different types of hot mounting resins.

| Recommended use   | Specific properties                         | Hot mounting resin | Material                               |
|---|---|--------------------|--|
| Clear mounts.<br>Porous specimens                                     | Clear transparent                           | <b>ClaroFast</b>   | Acrylic resin                          |
| Electrolytic polishing  | Electrically conductive                     | <b>ConduFast</b>   | Acrylic resin with iron filler         |
| Good edge-retention for hard materials                                | With glass filler only<br>Low removal rate  | <b>IsoFast</b>     | Diallylphthalate with glass filler     |
| Excellent edge-retention for hard materials                           | Very low shrinkage<br>Very low removal rate | <b>DuroFast</b>    | Epoxy with mineral filler              |
| Excellent edge-retention for soft to medium hard materials            | Very low shrinkage<br>High removal rate     | <b>LevoFast</b>    | Melamine with mineral and glass filler |
| Fast mounting process.<br>SEM examination                             | Very low shrinkage<br>Medium removal rate   | <b>PolyFast</b>    | Bakelite with carbon filler            |
| Routine examination of soft to medium hard materials.<br>Color coding | Medium shrinkage<br>Medium removal rate     | <b>MultiFast</b>   | Bakelite with wood filler              |
| Serial mounting of uncomplicated specimens                            | In pellet form for easy handling            | <b>Pre-Mount</b>   | Bakelite with wood filler              |



## LevoFast

For excellent edge-retention

LevoFast is a thermosetting melamine with mineral and glass fibres as filler, excellent for mounting of soft and medium hard materials.

- Excellent edge-retention
- Extremely low and uniform shrinkage
- Superior abrasion rate and workability

## PolyFast

For fast mounting

PolyFast is a thermosetting, bakelite resin with carbon filler, very suitable for fast mounting and for examination in a SEM.

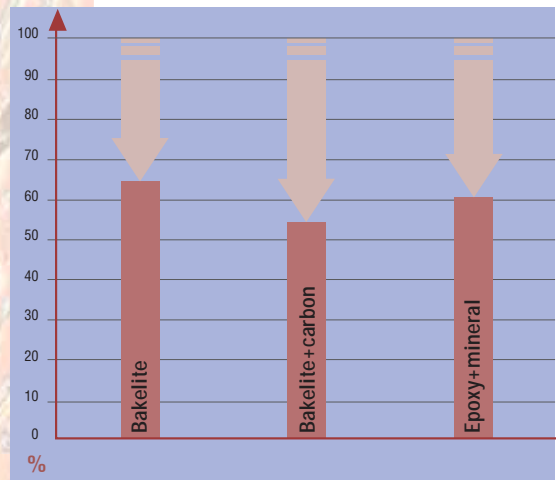
- Short mounting time
- Very low shrinkage
- Medium removal rate
- Electrically conductive for SEM



CitoPress-20 hot mounting press



CitoPress mounting times for different resins, compared to competing presses (competing presses = 100%)



The combination of PolyFast (bakelite+carbon) resin and CitoPress, is the fastest way to mounting and increased productive capacity



Aluminium plate, DIC, mounted in LevoFast 200x



LevoFast offers excellent edge-retention for soft and medium hard materials



PolyFast is for fast mounting and for examination in an SEM

## Specifications

| Hot mounting resin         | Colour       | Amount                       | Code  | Item no. |
|----------------------------|--------------|------------------------------|-------|----------|
| ClaroFast                  | Clear        | 1 kg                         | CLAON | 40100055 |
|                            |              | 7.5 kg                       | CLAME | 40100054 |
|                            |              | 25 kg                        | CLALA | 40100053 |
| ConduFast                  | Grey         | 1 kg                         | RESFE | 40100039 |
| IsoFast                    | Green        | 1 kg                         | RESDI | 40100042 |
|                            |              | 7.5 kg                       | RESTY | 40100043 |
| DuroFast                   | Black        | 1 kg                         | RESIF | 40100044 |
|                            |              | 7.5 kg                       | RESEN | 40100045 |
| LevoFast                   | Light yellow | 1 kg                         | LEVON | 40100057 |
|                            |              | 7.5 kg                       | LEVME | 40100058 |
| PolyFast                   | Black        | 1 kg                         | FAPSA | 40100036 |
|                            |              | 7.5 kg                       | FAPME | 40100037 |
| MultiFast                  | Black        | 2.5 kg                       | RESRU | 40100027 |
|                            |              | 7.5 kg                       | RESUK | 40100028 |
|                            |              | 25 kg                        | RESLA | 40100029 |
|                            |              | 75 kg                        | RESBI | 40100063 |
| MultiFast Green            | Green        | 2.5 kg                       | FAGSA | 40100030 |
|                            |              | 7.5 kg                       | FAGME | 40100031 |
| MultiFast Brown            | Brown        | 2.5 kg                       | FABSA | 40100033 |
|                            |              | 7.5 kg                       | FABME | 40100034 |
|                            |              | 25 kg                        | FABLA | 40100035 |
| MultiFast Red              | Red          | 2.5 kg                       | MUREM | 40100060 |
|                            |              | 7.5 kg                       | MURES | 40100061 |
|                            |              | 25 kg                        | MURET | 40100062 |
| Pre-Mount 25 mm / 1" dia.  | Black        | 10 kg<br>(approx 1.100 pcs.) | RESUN | 40101001 |
| Pre-Mount 30 mm / 1¼" dia. | Black        | 10 kg<br>(approx 760 pcs.)   | RESGI | 40101003 |
| Pre-Mount 40 mm / 1½" dia. | Black        | 10 kg<br>(approx 460 pcs.)   | RESAM | 40101005 |
| <b>Accessories</b>         |              |                              |       |          |
| Fixation Clips 6 mm        |              | 100 pcs                      | CLIMO | 40300026 |
| Fixation Clips 9 mm        |              | 100 pcs.                     | CLIPS | 40300025 |
| EpoDye                     |              | 20 g                         | EPOLU | 40300002 |
| AntiStick                  |              | 8 g                          | FASTI | 40300043 |



ClaroFast mount

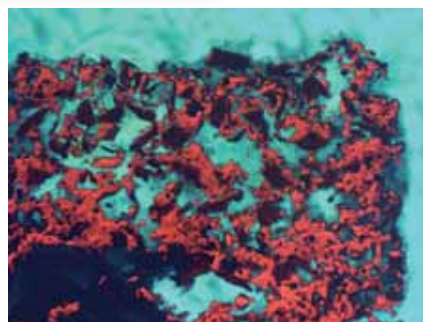


LevoFast mount

# Accessories

Struers offers a variety of accessories to provide easier handling and more accurate specimen preparation.

- Antistick for preventing the mounting resins to stick to the mounting rams
- Metal spring clips to hold or support small specimens
- EpoDye, dye for use with ClaroFast for microscopic examination under fluorescent light



Plasma spray coating, mounted in ClaroFast with EpoDye, in fluorescent light, 100x.

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



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