



Services to the Sciences Since 1924

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MOM-STORAGE-T-0684

Meltmount™

Notes on use for slides mounted in Meltmount™ from the manufacturer.

1. Meltmount™ is a THERMAL PLASTIC MATERIAL. This means its viscosity is dependent on temperature, (inversely dependent). As the temperature increases the viscosity decreases. There is no sharp melting point. Being thermal plastic, it is also capable of "cold flow". This means the Meltmount™, the specimen, the slide, and the cover slip can all move independently of each other given a mix of time, temperature, and lateral pressure or gravity.

2. Storage of prepared slides: treat them as the valuable items that they are.

Store:

- A. Flat, cover slip up
- B. In the dark
- C. Away from dust and fumes
- D. At 60° C to 85° C: Meltmount™ is meant to be thermally reversible. Do not allow this to happen inadvertently by storing or transporting prepared slides above 95° F (35° C).

MAKING MICROSCOPE SLIDE MOUNTS
USING CARGILLE MELTMOUNT™ QUICK-STICK™ MOUNTING MEDIA

MELTMOUNT™ QUICK-STICKS™ ARE AVAILABLE IN THE FOLLOWING INDICIES:
1.539.....1.582.....1.662.....1.680.....1.704

Meltmount™ and Quick-Stick™ are trademarks of Cargille Laboratories, Inc.

For a number of years Cargille Laboratories has been using the Meltmount™ Quick-Stick™ for the preparation of Cargille-Allen reference set slides. The following is the procedure used:

Note:

- a) Do all work in a well ventilated area.
- b) Meltmount™ is a thermoplastic: it is fluid when heated and functionally a solid at room temperature; the appearance of the prepared slide will remain unchanged after the slide is returned to room temperature.
- c) The most common problem encountered is: the inclusion of bubbles in the mount. The procedure described here should reduce or eliminate this problem.
- d) Meltmount Quick-Stick™ is Meltmount™ conveniently enclosed in a Teflon® tube that can be cut back to expose the Meltmount™ so it can be applied directly to a heated slide, making slide preparation quick and neat.

The Procedure for Using Meltmount™ Quick-Stick™

1. Adjust hot plate for medium heat (ideally 60° to 70 °C).
2. Remove the tall cap bearing the label.
3. When using Meltmount Quick-Stick™ 1.582, 1.662, 1.680, and 1.704 (but not when using 1.539), firmly roll the end to be used between your thumb and index finger or on a hard surface such as a lab table top; this will break the adhesion of the Meltmount™ to the Teflon® tube.
 - a) Use a single edged razor blade to cut off and remove the Teflon® to expose ¼ to ½ inch of Meltmount™.
4. Put a trial slide on the hot plate and apply Meltmount™ to its center. The melted Meltmount™ on the slide should be thin and watery but not smoking. If not, adjust the temperature up to make thinner, or down to avoid smoking (60° to 70 °C is ideal).
5. Put a slide on the hot plate with about ¼ of the slide off the hot plate's surface where it will remain cool so it can be handled.

6. Use the Quick-Stick™ to apply a 2cm patch of Meltmount™ to the center of the slide.
 7. Put the specimen in the center of the patch of Meltmount™, you may want to remove the slide from the hot plate to do this, then return it to the hot plate.
 8. Do the following as quickly as possible:
 - a) Place a cover glass completely on the hot plate surface.
 - b) Apply a 2cm size patch of Meltmount™ to the center of the cover glass.
 - c) Raise the Quick-Stick™ from the hot plate with the cover glass attached to the Quick-Stick™.
 - d) Remove cover glass from Quick-Stick™, invert, and drop (Meltmount™ side down) onto the center of the slide.
 - e) Use pencil eraser to center cover glass while pressing to remove bubbles.
 - f) Remove mounted slide from the hot plate.
- Note: Heat Sensitive Specimens may be altered by this method, in which case, mounts can be made without heat by the The Pressure Method described later in these instructions.
9. If the area beneath the cover glass is not completely filled with Meltmount™, return the slide to the hot plate and add more Meltmount™ by touching the Quick-Stick™ to the edge of the cover glass. Then remove from the heat.
 10. Optional: The cleaning of the mounted slide and removal of excess Meltmount™ can be done as follows:
 - a) When the slide has cooled to room temperature, scrape off excess Meltmount™ using as a tool a single edge razor blade or a dental scraping tool. The tool can be dipped frequently in cold water to keep it cool and avoid sticking.
 - b) Soak the slide in a tray of Windex® window cleaner.
 - c) While immersed, clean around the edge of the cover glass using a sponge tipped swab (a cotton tipped swab will leave fibers behind).
 - d) Remove the slide from the tray and do the final cleaning with a lint free tissue.

The Pressure Method

Note: This method is useful for making permanent slides in the field, or for making permanent slides of heat sensitive specimens.

1. Turn on hot plate to medium heat (approximately 60° to 70 °C).
2. Place clean slide on hot plate with ¼ of the slide off of the hot plate so that this portion will remain cool so that you can pick it up with your fingers.
3. With the Quick-Stick™ apply a patch of Meltmount™ that is the size of a cover glass.
4. Remove slide from hot plate and cool to room temperature.
5. Store slides with Meltmount™ in a slide box, with slides held flat.

6. Applying the specimen can be done in many ways such as:
 - a) Drop specimen onto the patch of Meltmount™.
 - b) Place the Meltmount™ patch on the slide directly against the specimen.
 - c) Transfer specimen to sticky tape, then transfer from tape to the Meltmount™ patch on the slide by running your fingernail over the back of the tape.

7. The cover glass can be used either with or without first applying to it a layer of Meltmount™. The Meltmount™ can be applied to one side of the cover glass as it sits on the hot plate. When the cover glass has been removed and has cooled it can be placed over the patch of Meltmount™ containing the specimen on the slide. In the field it may be more convenient to place a cover glass without Meltmount™ on top of the Meltmount™ patch containing the specimen on the slide.

8. Press the cover glass and slide together using thumb and forefinger, taking care not to crack the cover glass.

9. If desired, the finished slide can be improved by one of the following methods:
 - a) Apply pressure of thumb and forefinger for a longer time.
 - b) Heat briefly on a hot plate.
 - c) Place a waxed paper covered weight, such as a book, on top of the mounted slide overnight.