



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* MOUNTING MEDIA

*Meltmount is a trademark of Cargille Laboratories, Inc.

The following method is used by Cargille Labs; for making Cargille-Allen reference set slides using Cargille Meltmount mounting media, and is recommended as a method using Meltmount.

- Note:
- a. Do all work in a well ventilated area.
 - b. The inclusion of bubbles in the final mount is the most common problem encountered; the method used here should reduce or eliminate this problem.
 - c. 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.

The Meltmount Method:

1. Remove cap from Meltmount bottle, invert cap and place on top of opened bottle. This will keep dust out of the bottle, and will not expose the cap liner to temperatures that may melt it.
2. Place Meltmount bottle on a small hotplate on medium heat.
3. Heat to a temperature at which the Meltmount is very thin and watery, but does not smoke (60 to 70 °C).
4. Place a glass eyedropper in a small vial or bottle on the hot plate. This eyedropper will be used to apply Meltmount to the slide; it is kept in the vial on the hot plate between uses so that the Meltmount left in it will not harden.
5. OPTIONAL: You will be making the slide mount with the slide on the hot plate. To improve contrast, instead of putting the slide directly on the hot plate, put a piece of colored paper (usually black or white) on the hot plate, cover this with a piece of heat resistant glass, and put your slide on top of the glass.
6. Place a cleaned microscope slide on the hot plate (or as in step 5).

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7. Place specimen on slide (Note: some heat sensitive specimens can not be mounted using heated Meltmount, heat sensitive specimens can be mounted at room temperature using the Pressure Method described later in these instructions or by using Meltmount that has been thinned by the user with a solvent such as Toluene, which is then evaporated).
8. Place a cover glass on top of specimen.
9. Using a pencil eraser, rock the cover glass back and forth to help level the cover glass.
10. With the eyedropper, apply 2 or 3 drops of Meltmount on the slide at 2 corners of the cover glass. The Meltmount will then flow under the cover glass and surround the specimen.
11. Using the pencil eraser again, rock the cover glass back and forth to help level it and spread the Meltmount . Then use the eraser to position the cover glass as desired.
12. If the Meltmount does not completely fill the space under the cover glass, apply more with the eyedropper as in step 10.
13. If bubbles appear in the Meltmount under the cover glass and the bubbles are not coming from the specimen, you should reduce the temperature of the hot plate or work more quickly in order to finish the slide before the Meltmount boils.
14. When the slide is prepared to your satisfaction, remove from hot plate and allow to cool to room temperature.
15. Removing excess Meltmount from slide
 - a. Slide must be cool.
 - b. Scrape off excess using a razor blade.
 - c. Remove the remainder using a tissue and a solvent such as xylene, or toluene. Wear polyethylene gloves to avoid getting the solvent and Meltmount on your hands, polyethylene provides greater protection from solvent penetration. For greater manual dexterity, a surgical type glove may be worn over the polyethylene gloves.
16. Turn off hot plate and allow the Meltmount to return to room temperature before screwing on the cap.
17. For additional information concerning technique, contact the Cargille Technical staff.

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. The Meltmount is melted to a workable liquid as in the previous method.
2. A clean slide is placed on the hot plate.
3. Meltmount is applied with the eye dropper in a thin layer, filling in the area on the slide that will be covered by the cover glass. It is best to have a flat layer of Meltmount.
4. The slide is allowed to cool to room temperature before using.
5. Store slides with Meltmount layer in a slide box until needed. Prepared slides should always be stored flat.
6. Applying the specimen can be done in many ways such as:
 - a. transfer specimen to sticky tape then transfer from tape to Meltmount layer on the slide by running your fingernail over back of tape placed sticky side toward the Meltmount layer.
 - b. place Meltmount layer and slide directly on specimen.
 - c. drop specimen on Meltmount layer.
7. Cover slip is then placed over specimen and Meltmount layer and is pressed between thumb and forefinger, taking care to avoid cracking cover slip.
8. If desired, the finished slide can be improved by:
 - a. more pressure with thumb and forefinger.
 - b. heating briefly on hot plate.
 - c. placing wax paper-covered weight, such as a book, on the attached cover glass overnight.