

Quick-Stick Mounting Medium

AGL4295

Making Microscope Slide Mounts Using Cargille Meltmount™ Quick-Stick™ Mounting Media

Meltmount Quick-Sticks are available in the following indices:

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 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.

Procedure

1. Adjust hot plate for medium heat (60 to 70°C)
2. Remove the tall cap bearing the label.
3.
 - a) 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.
 - b) Use a single edged razor blade to cut off and remove the Teflon to expose 1/4 to 1/2 inch of Meltmount.

4. Put a trial slide on the hot plate and apply Meltmount to its centre. 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° is ideal.
5. Put a slide on the hot plate with about 1/4 of the slide off the 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 centre of the slide.
7. Put the specimen in the centre 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 on the hot plate surface.
 - b. Apply a 2cm size patch of Meltmount to the centre 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 centre of the slide.
 - e. Use pencil eraser to centre 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 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 diluted Teepol.
 - c. While immersed, clean around the edge of the cover glass using a sponge tipped swab (a cotton tipped swab will leave behind).
 - d. Remove the slide from the tray and do the final cleaning with a lint free tissue.

Alternatively the Meltmount can be removed with 3'M's magic tape.

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 1/4 of the slide off 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 slide with Meltmount in a slide box, with slides held flat.
6. Applying the specimen can be done in many ways eg.
 - 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.