

# Mounting Wax Products

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## Mounting Wax, Clear Stick (#71-10040)

Clear mounting wax provides a quick and strong bond between samples and fixtures for cutting and/or polishing.

It is typically used for lapping and polishing optical, ceramic and semiconductor components, dicing, and mounting cross-sections for SEM/TEM analysis.

While mounting wax can be used with samples of any size, it is easier to achieve a uniform wax thickness when preparing smaller samples ( $\leq 10 \text{ mm}^2$ ).

Acetone can be used to dissolve/remove the wax after use, as well as to thin the wax for improved sample registration. For ease of use, apply the wax to a heated fixture.



### Instructions for Use

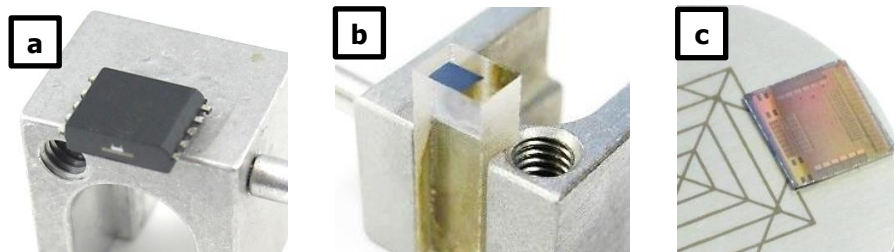
1. Heat a fixture on a hot plate at 150 °C.
2. Place a small amount of mounting wax on the surface of the fixture.
3. Once the wax is soft, place the sample on the fixture.

**Note:** For an ultra-thin layer, dip a cotton-tipped applicator in acetone and run it along the wax layer until the wax appears hazy and has no clumps.

4. Remove the fixture from the hot plate and allow it to cool at room temperature.
5. To remove the sample after preparation, place the fixture back on the hot plate and reheat the wax. Once the wax is soft, remove the sample; the wax can be reused.

**Note:** Do not quench the fixture to cool the wax; the wax may become brittle, causing the sample to break off. For some samples, a mount leveling press (#120-30020) can be used to even out and thin the wax layer, improving registration between the sample and fixture.

Mounting Wax	
Melting Temperature	50 °C
Flow Point	75 °C
Viscosity	25,000 cP @ 75 °C 5,000 cP @ 100 °C 2,000 cP @ 125 °C
Solvent	Acetone



**Figure 1:** Mounting wax was used to secure a) a package to a cross-sectioning paddle, b) silicon to a TEM wedge/FIB thinning paddle and c) an IC to a standard parallel polishing fixture.

## Sheet Wax (#71-10400)

Sheet wax provides uniform distribution of wax to improve registration accuracy of the sample to the fixture, and can be easily cut to size and placed on a room-temperature fixture before melting.

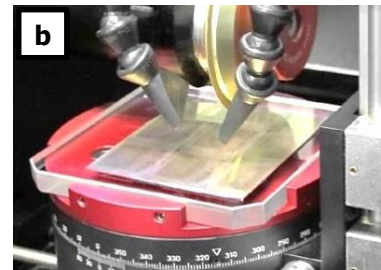
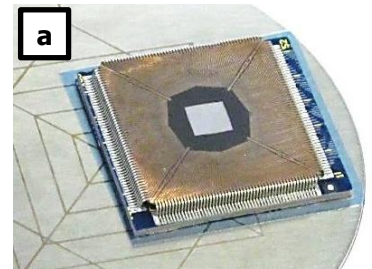
It is typically used for dicing, thin sections and parallel delayering.

While sheet wax can be used with samples of any size, it is easier to achieve a uniform wax thickness preparing larger samples ( $\geq 10 \text{ mm}^2$ ).

### Instructions for Use

1. Cut out the sheet wax to fit the required sample shape.
2. Remove the lining from the back of the sheet wax, place the wax on a fixture/paddle and place the sample on the wax.
3. Place the fixture with the sample and wax on a hot plate at 150 °C.
4. The wax will be completely melted when all the bubbles have spread out creating an even uniform layer.
5. Remove the fixture from the hot plate and allow it to cool at room temperature.
6. To remove the sample after preparation, place the fixture back on the hot plate and reheat the wax. Once the wax is soft, remove the sample. Sheet wax is not as effective after the first use, since the wax layer has already been thinned out.

**Note:** Do not quench the fixture to cool the wax; the wax may become brittle, causing the sample to break off. This wax is more resistant to acetone, so Wax Dissolver can be used to remove the wax from the sample and fixture after use.



**Figure 2:** Sheet wax was used to secure a) a package to a 3" parallel polishing fixture and b) a silicon wafer to a glass insert for dicing.

Sheet Wax	
Flow Point	100 °C
Tensile Strength	120 psi
Shore Hardness	80 A
Solvent	Wax Dissolver

## Wax Dissolver (#71-10210)

Use wax dissolver to thin or remove sheet wax. It can be applied directly to the wax with a cotton-tipped applicator or wipe.