A thermoplastic adhesive for mounting powder specimens and small particles for scanning electron microscopy

Characteristics

TEMPFIX is a resin which does not contain any solvents and is stable in high vacuum. It is not sticky at room temperature but becomes adhesive at around 40° C (104° F) and melts at 120° C (248° F).

TEMPFIX is an excellent smooth embedding medium such that even the smallest particles can be imaged successfully in the scanning electron microscope, without any background interference.

Accessories required for handling TEMPFIX:

(a) Hot plate
(b) Spatula
(c) Aluminum specimen sheet 10x10mm, thickness 0.25-1.0 mm to be used as a specimen mount
(d) 12mm pin mount specimen holder with side clamping screw on top

Items c & d are included along with two TEMPFIX adhesive sticks in the TEMPFIX set.

Directions for use

Warm up an aluminum specimen sheet on a hot plate to around 120° C (248° F).

WARNING: This temperature can cause pain and injury so care should be taken to avoid contact with the hot plate and/or heated specimen sheet.

Apply a small amount of TEMPFIX and smooth it over the sheet with a spatula. Remove any excess resin. Specimen sheets coated in this way can be stored for future use.

For scanning electron microscopy examination of powder specimens, sprinkle the powder onto one of the coated aluminum sheets. Warm up the coated sheet for a few moments to around 40° C (104° F) on the hot plate. Remove the sheet and cool it on a metal block. The thin aluminum specimen sheet cools down rapidly so that even the most delicate specimen will not suffer heat damage.

The specimens prepared in this way can then be coated by sputtering or evaporation.