■ Epoxy Bond 110

Epoxy Bond 110 is a very low viscosity, hard and fast-curing epoxy with excellent bonding characteristics. A unique feature of Epoxy Bond 110 is the red color that appears on curing. Cure by color instead of time. It is a reactive system only when heat is applied. It has good adhesion to many materials including metals, ceramics, glass and most plastics. Use for IC Cover Slip Technique when IC does not have passivation layer, when rounding occurs during cross-sectioning, or in the semiconductor field for bond pad protection. Ⓜ part A, Ⓜ part B, Ⓣ ■ T, I

16028 Epoxy Bond 110 . . . . . .each

■ M-Bond™ 610 Adhesive

ion milling, cross-sectioning

This is a non-conductive, two-component, solvent-thinned, epoxy-phenolic adhesive for high performance applications. Chemically resistant and provides a thin layer of glue which has good ion milling properties. It has low viscosity and is extremely thin, with minimum creep, hysteresis and linearity problems. Solids content is 22%. It is an excellent adhesive for mounting samples for TEM dimpling and bonding of samples to TEM grids for imaging or FIB.

Operating temperature range, short term is -269° to +370°C; long term, -269° to +260°C.

Elongation can occur at +24°C (3%). This may be the widest temperature range general-purpose adhesive that is available.

A kit contains: 4 bottles (14g each) Resin, 4 bottles (11g each) Curing Agent, 4 brush caps for dispensing mixed adhesives, 4 disposable mixing funnels and instructions. Ⓜ part A, Ⓜ part B, ■ I

16039 M-Bond™ 610, complete kit . . . . . .each

■ Tempfix™ Adhesive Specimen Mount Set

excellent for particulate specimens such as powders, particles, pollens, insects, dried samples and similar fine matter

Tempfix™ is a non-conductive thermoplastic hot melt adhesive resin, especially formulated for SEM studies. It does not contain solvents and is stable under high vacuum. Its adhesive characteristics appear in the 40-120°C range. Melting starts at 40°C and it becomes a thin fluid at 120°C, displaying a wide viscosity range. It has a very smooth surface and can be used in SEM imaging without interfering background.

Preparing specimens requires a hot plate or heating block, aluminum sheets of 10x10x0.25mm used as specimen mounts, a metal cooling block and a pin stub type specimen holder with a side clamping screw on top. The aluminum sheet is warmed up to about 120°C and a small amount of Tempfix™ is applied and smoothed over the sheet. Excess resin is removed. After the sheet has cooled down, Tempfix™ is a solid smooth plastic surface. Particulate or other small samples may be sprinkled or applied on the solid plastic surface and the sheet is gently heated above 40°C to the desired viscosity. Use temperature to control viscosity and how far the particulates "sink" into the adhesive. Remove the sheet and cool it quickly on a metal block. Delicate specimens will likely not suffer heat damage. A thin conductive coating (sputtering or evaporation) might be needed for optimum imaging results. The aluminum sheet with the specimen can either be mounted on the supplied pin mount adapter with clamping screw or can be mounted on a specific SEM mount with a conductive adhesive carbon tab. Ⓜ adhesive, Ⓜ curing agent, Ⓣ ■ I

16030 Tempfix Adhesive Set . . . . . .each

■ Cg = Suspected Carcinogen	■ O = Oxidizing
■ C = Corrosive	■ R = Radioactive
■ F = Flammable	■ T = Toxic
■ I = Irritant	❑ U = Unlisted
■ L = Lachrymator	

Ⓜ = MSDS on web page
Ⓣ = Tech Note on web page
H◆F = Hazard Fee may apply

Aron Alpha Super Glue

industrial Krazy Glue®

No mixing, no heat, dries clear. Contains no solvent. Not affected by solvents, except ketones. Hazardous; read instructions. Nonconductive.

Industrial quantities on quotation. ■ I

Methyl Blue Cap® Type 102 - Methyl 2-Cyanoacrylate
Used when metal is one of the bonding components, such as metal to plastic, metal to rubber, etc. Viscosity 100 cps, but not on porous materials.

14425 Aron Alpha 102, 5 x 2g pack M . . . . . .each

Ethyl Ultra Speed Type 221 - Ethyl 2-Cyanoacrylate
The fastest drying cyanoacrylate made (3-10 sec.). Used in high speed gluing or high speed assembly operations and for superior wicking. Viscosity 2 cps. Clear.

14430 Aron Alpha 221, 5 x 2g pack M . . . . . .each

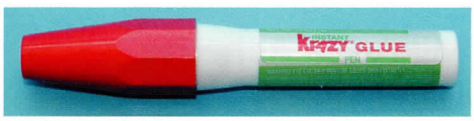
Ethyl White Cap® Type 201 - Same as 14450 ("Krazy Glue®")
Bonding any combination of plastic, rubber, ceramic or glass. Metal bonds with a modest decrease in bond strength. Viscosity 2 cps, set time 5-20 seconds. Clear.

14435 Aron Alpha 201, 5 x 2g pack M . . . . . .each

Ethyl Blue Cap® Type 202 - Same as 14430, Type 221, but with setting time slowed one-half to one-third (10-60 sec.). Added time for positioning components or to apply to large surface areas. Clear, general purpose. Viscosity 100 cps.

14440 Aron Alpha 202, 5 x 2g pack M . . . . . .each

Krazy Glue® Pen



No mixing, no drip, no clogged tips. Contains cyanoacrylate adhesive; comes out one drop at a time. Bonds in seconds. Clear, same as Type 201. M ■ I

14450 Krazy Glue® Pen, 3g . . . . . .each

Poxy Pak™ Epoxy

fast cure epoxy, dual eject syringe; no measuring, no waste, no mess

Fast cure, high strength, thick liquid reaches handling strength in 4-6 minutes. Bonds virtually any material to repair, fill and seal holes, cracks and worn surfaces. 29.5ml (1 ounce).

14443 Poxy Pack™, 29.5ml . . . . . .each

Adhesive Tabs

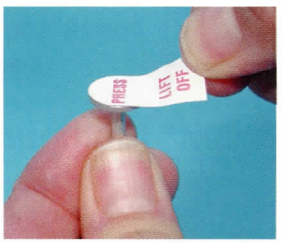
Composed of a thin film of strong nonconductive adhesive. Size of adhesive area is 11mm 7/16" (11mm) diameter which is appropriate for ½" SEM pin and cylinder mounts. Place the "press" portion of the tab on an SEM mount surface. After pressing, pull tab up and a thin layer of adhesive is left on the mount surface. Contents: 72 sheets, total of 2,592 tabs.

16079 Adhesive Tabs, box/2,592 . . . . . .each

Lift-N-Press Tabs

A new, improved adhesive tab composed of a thin film of strong, nonconducting, ½" (12.7mm) diameter adhesive which has these properties:

- Fits ½" SEM pin and cylinder mounts
- Smoother background
- High strength adhesive
- Better particle detection
- Adhesive only 25um thick
- Easy dispensing roll
- Longer shelf life



adhesive being applied to a specimen mount using Lift-N-Press

16082 Nonconductive Lift-N-Press, roll/500 . . . . . .each

Duco® Cement

Dries fast, clear, tough. For china, glass, wood, metal, leather. Contains acetone and butylacetate solvents. Nonconductive. M T ■ F, I, T

14445 Duco® Cement, 29.5ml . . . . . .each

Super Fast Epoxy

Super fast 2-part epoxy resin cement for bonding applications. Sets in minutes. Full bond overnight. Stick polymerized specimens on aluminum Specimen Slug Mounts. Will not dissolve in acetone or alcohol. Dual dispersing syringe. M ■ I

14420 Epoxy Cement, 14.8ml 2-part . . . . . .each

Loctite® Quick-Set Glue

Vibratome® and Microslicer applications and other quick-set tissue-slide uses. 0.33 oz. / 9.3g / 10ml. M ■ I

10035 Loctite 404 Tissue Adhesive, 10ml . . . . . .each

Loctite® 460 Sample Bonding Adhesive

Locktite® 460 is a fast curing thin glue which can be used as an alternative to wax for mounting samples to glass for TEM/FIB Thinning. Soluble in acetone. M ■ I

16029 Loctite 460 Sample Bonding Adhesive, 20g . . . . . .each

3M® Multipurpose Adhesive

- High tack, fast drying adhesive offers great coverage
- Permanently attaches foils, paper, cardboard, felt cloth to painted or unpainted metals, wood and hardboard
- Controlled spray pattern to minimize overspray and cleanup
- Mount photographs on art board or foam core.
- Not recommended for EPS expanded polystyrene foam

M ■ F

16049 3M™ Multipurpose Adhesive . . . . . .each

3M® Adhesive Remover

Powerful replacement for mineral spirits, solvents and other unfriendly cleaners. Ideally suited for removing used grinding/lapping/polishing discs with PSA backing from their support discs. New food-grade citrus based 3M® adhesive remover is also very effective in removing overspray of any aerosol adhesives, grease, oil, grime, tape residue, tar, wax, etc. A solvent-free formulation that provides wipe-away convenience with no filmy residue.

Active ingredient is listed as GRAS (Generally Regarded As Safe) for food contact applications under FDA21 CFR 182.20.

Flammable propellant. M ■ F

80924 3M® Adhesive Remover, 6.25 oz. case/6
80924-1 3M® Adhesive Remover, 18.5 oz. . . . . .each
80924-10 3M® Adhesive Remover, 18.5 oz. case/6

Glue Gun

low temperature model

Glue Guns provide practical adhesive uses for certain applications. Leo Barish's papers referenced below and others not mentioned cover this subject.

A thermoplastic glue stick is used with a gun-type design to melt the glue and allow its application, for example, to an SEM specimen mount. Heavier and/or larger specimens, which might move during study when held with a tape or disc adhesive, will hold firmly in place when this type of adhesive is used to "seat" the specimen. Carbon coating the specimen and the adhesive will permit an electrical discharge path. A lower temperature range (100° to 120°C / 212°- 248°F) is preferable, such as our model 16068 to avoid possible damage to heat sensitive specimens. (Normal temperature for standard high temperature glue guns is in the 190° to 210°C / 374° to 410°F range). The glue hardens quickly so the specimen should be positioned promptly upon glue application. If re-positioning is required, the glue may be softened with the Glue Gun.

Porous specimens such as felt with a poor discharge path may accept a track of glue over its surface to reduce such static. Granular specimens may be sprinkled onto the hardening surface.

16068 Glue Gun, Low Temperature . . . . . .each
16068-2 Glue Sticks, 4" L x ø.437", pkg/18, Low Temp. . . . . .each

References:
Barish L, August 1990. The Use of the Common Glue Gun in Light and Scanning Electron Microscopy. Paper presented at INTER/MICRO-90, Chicago, 19-22.
Barish L, 1992. Mounting of Specimens for SEM with the Common Glue Gun. Proc 50th Ann Meeting of the Elec Mic Soc of America. pp 410-411.

Mikrostik Adhesive

Ultrathin sticky base, clear, suitable for small particles which are submerged by other adhesives. Applications cited include organic powders, pollen, seeds for attachment to an SEM stub. Can be diluted with MEK. Dries quickly. Nonconductive. M ■ F, I

16033 Mikrostik Adhesive, 14ml . . . . . .each

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