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# 604 SERIES

## *UV Curable Protective Coatings*

**DESCRIPTION**

The 604 Series coatings are highly elastic photopolymers with excellent protective properties for applications on hybrid, COB and other semiconductor (IC) devices where an elastomer is desired.

The formula is non-corrosive in nature and contains low levels of ionics to minimize contamination potential. 604 Series contains no solvents and is a single part, optically clear liquid packaged in standard cartridges for hand or automated dispensing. The coating rapidly cures to a flexible polymer when exposed to high intensity UV energy. Excellent as a stress buffer coating over lead wires and die prior to encapsulation, or as an environmental seal over fine pitch leads on SMD components. Resists solvent and aqueous cleaning processes. Resists extreme temperature cycling conditions, with unique low temperature properties similar to silicones. Remains easily removable for repair operations by peeling.

**CURE SCHEDULE**

Expose to a medium pressure mercury vapor type lamp operating at a minimum of 200 watts per inch input power.

Minimum intensity:      35 mW/cm<sup>2</sup> @ 254 nm  
                                   130 mW/cm<sup>2</sup> @ 365 nm

Exposure:                    <10 seconds, depends on application thickness.

Post cure option: 15 minutes @ 100°C

**STORAGE AND HANDLING**

Shelf life is warranted for a minimum of 6 months from date of shipment when stored in darkness at 50-75°F. Avoid contact with skin and eyes as directed on the MSDS.

**UNCURED PROPERTIES**

Base resin                    polyaliphatic

Solids:                        100%, no solvents

Components:                one

Color:                        clear

Density:                     9.3 lbs/gallon

Viscosity by product:

604A	6000 cps
604B	10,000 cps
604AT	45,000 cps
604C	Thixotropic gel*

\* 80,500 cps @ 21°C, Brookfield LVF with #5 spindle

Flash point:                >200°F

**CURED PROPERTIES**

Hardness:                    35 (shore A)

Elongation:                 120%

Tensile:                      200 psi

Thermal shock:            -50-125°C, 1000 cycles per Mil Std 202°F

Humidity:                    85°C/85% RH, 1000 hours per Mil Std 202°F

Impurities:                 ionics                    <30 ppm  
                                   solvents                 <1%