

MicroCoat Technologies

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Unparalleled in Polymer Coatings and Adhesives Technology™

PRODUCT DATA SPECIFICATION



MCT 3450-4B or G UV CURE EPOXY HYBRID CIRCUIT PROTECTIVE OVERCOAT

MicroCoat Technologies 3450-4B or, G is a 100% solids UV cure epoxy protective overcoat for thick and thin film hybrid circuits. It is a screen printable protective coating with fast throughput, safety, and the environment in mind. Developed for overcoating very tightly trimmed thick or thin film resistors after trim so that there is no shift in resistor tolerance - NONE

This chemical resistant epoxy formulation has been used to replace heat cure blue epoxy overcoats for hybrid circuits and chip resistors that require plating as well. The 3450-4 has a latent heat catalyst that cures the coating to a hard surface with the heat generated from the UV source. Good results have also been obtained using this material as a dielectric for polymer thick film resistor circuitry on PCB and flex materials.

This material may be screen-printed on alumina, BeO, AlN, gold and palladium plated substrates including lead frames, standard thick film printed circuitry, or PCB substrates with excellent results. Its viscosity lends itself to self-leveling and may be adjusted for specific applications. The cured film is extremely tough, offers protection from thermal shock, moisture, abrasion, oxidation, and corrosion of certain conductive compositions, and may decrease the chance of silver migration in certain instances.

Typical Properties:

Viscosity:	Thixotropic paste
Color:	Blue or Green
Clarity:	Slightly opaque
Gel time [at 100mW/cm ²]:	10 seconds at 5 mils, 30 seconds, typical to 0.125" depth
Post Cure	
[Using UV light for cure initiation only]:	30 minutes @ 80°C
Cured Shore D Hardness:	89+
Glass Transition Temperature [T _g]:	150°C
Volume Resistivity:	1.4x10 ¹⁵ ohm-cm
Refractive Index: Dn ₂₀	1.5715 (If translucent)
CTE:	50x10 ⁻⁶ in/in/°C
Elongation	3%
Tensile Strength:	8,700 psi
Lap Sheer Strength:	1,500 psi
Compressive Strength:	> 30,000 psi
Dielectric Strength:	427 volts/mil

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