Product Data Sheet

***SuperCure*™ 87153-1**

MicroCoat Technologies
http:www.m-coat.com
Unparalleled in Polymer Coatings and Adhesives Technology

UV/VISIBLE LIGHT CURABLE MOLD COATING or SURFACE COAT FOR LED's AND INDUCTORS *SuperCure*™ 87153-1

The MicroCoat Technologies ***SuperCure*™** 87153-1 is a 100% solids, single component, solvent free epoxy coatings. These formulations were developed to cure very quickly upon exposure to UV/Visible Light in the 300-400nm wavelength range, and takes advantage of the 400nm+ wavelength present in conventional UV cure systems. The coating provides a chemical - moisture - shock resistant barrier on LED's for color transformation, and on other electronic components such as inductors. The material has been used to mold various color LED's and inductors using polypropylene molds, and is being used very successfully for acting as a "flat" on the surface of SMD components so they may be used on very fast pick and place equipment. ***SuperCure*™** 87153-1 is also available with a heat bump.

Product	***SuperCure*™** 87153-1	
Color	Clear, Blue, Green, Violet, Red	
% Solids	100%	
Specific Gravity	1.05	
Flash Point (COC)	>212F	
Viscosity (cps) ± 10%	630	ASTM D-1384
Dielectric Strength	674V/mil	IPC-TM-650.2.5.6.1
Dielectric Constant	3.52 @ 1 MHz	ASTM D-150
Dielectric Withstanding Voltage	247	IPC-TM-650.2.5.6.1
Volume Resistivity	1 X 10^{15} ohm cm	IPC-TM-650.2.5.17.1
Surface Resistivity	>1.9 X 10^{17}	IPC-TM-650.2.5.17.1
Dissipation Factor	0.0174 @ 1 MHz	ASTM D-150
Outgassing (TML)	<0.3%	ASTM E-595-77
Refractive Index	1.49 (Clear)	ASTM D-542
Durometer: ± 5	75D	ASTM D-2240
24 hour IPA Soak	Passes	*****M-1010
Solder Reflow 63/37 230°C	Passes	*M-1021

Shelf life at typical ambient temperature - 12 months if stored unopened in original container above 20°C
Exposures as short as 5-10 seconds have been found effective.

Factors Affecting UV Curing

- Dark surfaces lengthen cure time
- Full range (UV-A, B & C) lamps provide faster cures than filtered sources
- All UV sources degrade with time/use. Check output of the light source frequently with a radiometer.
- Thicker films, darker colors, may require longer cure times
- Polypropylene is best for molds.

*****M = MicroCoat Technologies Internal specification