

# Product Data Sheet



RoHS/WEEE, REACH,  
and Halogen Free



## Product

**MCT 1107OC/WH/BL**

### MicroCoat Light Pipe System

**NO mixing, NO de-airing, NO Heat Cure, NO short pot life, NO SILICONES**

MCT 1107 Series is a single component, 100% solids tri-colored system consisting of optically clear, reflective white, and black cover coat materials. They are a microelectronics grade Acrylated Urethane blend UV curable coating for microelectronics applications with operating temperatures of -50°C to +150°C. They are single component liquids that cure in seconds to a tough slightly flexible polymer when exposed to ultraviolet light. This material has been specifically formulated for coating light-pipe type of opto switch systems and opto sensors on virtually any substrate material. The clear coating has excellent light transmissivity with an RI of 1.53.

The outstanding characteristic of this material is its extremely fast cure. Thin films (<.010") can be cured in under 10 seconds, and thick sections (up to about .060"), in 20-25 seconds. This material is exceptionally stable stored at room temperature for up to 9 months in a cool (25°C), dark place in the original container.

MCT 1107 is sensitive to UV from 320 to 380 nanometers with peak sensitivity around 365nm. A filled area, as compared to a glob top or film will require more energy or a longer cure cycle due to its thicker cross section.

After cure, adhesion to ceramic, glass, metals, printed circuit boards, LCP, and other glass filled substrates is excellent.

	MCT 1107OC	MCT 1107WH	MCT 1107BL
<b>TYPICAL PHYSICAL PROPERTIES</b>			
Color	Optically Clear	White	Black
Cure time @ 365nm (Sec)	<15	20	25
Useful Temperature Range		-55°C to 150°C	
Viscosity (cps)		5-7K cps Slightly Thixotropic	
Elongation (%)	200	165	165
Tensile (psi)		534-650	
Tear Strength (ppi)		60-75	
Shore Hardness (D)		35-45	
Refractive Index	1.53	NA	NA
Dielectric Strength (V/mil)	475	550	675
Volume Resistivity (ohm-cm)		5.7 x 10 <sup>14</sup>	
H2O Absorption 24 hr immersion @ 22C		<1%	
Post Cure Ionics 883/5011.3.8.7	Cl=<6ppm, Na+=<3.3ppm, K+=<1.1ppm		
	Teflon Flask 5 gm sample using 20-40 mesh, 50 gm DI H <sub>2</sub> O, 100°C for 24 hours		

Application: Automatic Dispense (Needle diameter to be determined by application)  
Storage: 20°C – 25°C in a dark environment.  
Shelf life: 9 months @ 25°C  
Packaging: 10cc and 30cc EFD Black Syringes

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