

# MicroCoat Technologies

1316 Somerset Drive McKinney, TX 75070 +1-972-678-4950 Fax +1-214-257-8890

Unparalleled in Polymer Coatings and Adhesives Technology™



## Product Data Sheet

### UV CURABLE MOLD COATING FOR INDUCTORS & ELECTRONIC COMPONENTS **SuperCure™ 10790-A/F (Any Color)** **RoHS COMPLIANT**

The MicroCoat Technologies **SuperCure™ 10790-A-D** is 100% solids, single component, solvent free acrylate coating. 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 materials have 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 components so they may be used on very fast pick and place equipment.

Properties listed below may be achieved by curing with a 7-8W/cm<sup>2</sup> UV light wand or floodlight.

Product	<b>SuperCure™ 10790-A-F</b>
Color	Clear, Blue, Green, Red, Violet, are standard
% Solids	100%
Specific Gravity	1.05
Flash Point (COC)	180F
Viscosity (cps)	7,500
Dielectric Strength	5175V/mil
Dielectric Constant	2.4 @ 1 MHz
Volume Resistivity	8X10 <sup>15</sup> ohm cm
Dissipation Factor	0.014 @ 1 MHz
Outgassing (TML)	<0.5%
Refractive Index (Clear)	1.49 (clear)
Hardness	88D

Exposures as short as 5-10 seconds have been found effective. Any heat generated by the UV source will serve to increase the speed and extent of cure.

#### 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, require longer cure times
- Light intensity decreases as distance from the UV source increases
- Some clear plastics act as UV inhibitors. Test for cure on sample pieces. Polypropylene is best for molds.

The information contained herein, is, to the best of our knowledge accurate. However, MicroCoat Technology does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. The information contained herein is considered typical properties and is not intended to be used as specifications for our products. This information is offered solely to assist purchasers in selecting the appropriate products for purchaser's own testing. All products may present unknown hazards and should be used with the proper precautions. Although certain hazards are described herein and in the Material Safety Data Sheets, we cannot guarantee that these are the only hazards that exist. Repeated and prolonged exposure to epoxy resins can cause sensitization or other allergic responses.