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ENGINEERING DATA SHEET
OPTICALLY CLEAR EPOXY 3450

3450 is a two component, 100% solids, optically clear, modified epoxy coating used for electronic circuit and component protection. The mixing ratio for this material is 1: 1 by weight or volume and has a useful pot life of 30-40 minutes. When properly cured, this product yields a chemically inert film which helps to prevent the effects of corrosion, moisture, oxidation, abrasion, and thermal shock. Applications include potting of LED lights and optical sensors which require maximum light transmission and electronic assemblies where visual inspection is necessary. No ingredients which are corrosive or harmful to electronic components are used in this material.

COMPOSITION PROPERTIES:

Color	Optically Clear
Solids	100%
Viscosity (Mixed)	2.0 Kcps (Brookfield RVT, spin #7, 20 rpm, 25°C)
Cure Schedule	24 hours @ 25°C (90% Cure) or 72 hours @ 25°C (Full Cure) Alternate Heat Cure - 30 minutes @ 80°C
Service Temperature	-55 to 175°F
Dielectric Breakdown	425 Volts/mil @ 125 mils 1800 Volts/mil @ 1 mil
Insulation Resistance	>1 x 10 ¹⁴
Thermal Conductivity	0.1 Btu/(hr)(sq ft)(°F)(ft)
Pot Life	30-40 minutes (30 gm mass @ 25°C)
Shelf Life	12 months @ 25°C (Sealed Container)

PROCESSING PARAMETERS:

Surface Preparations	Be sure that all surfaces to be coated with 3450 are clean, dry, and free of any grease or oil.
Mixing	The material should be thoroughly mixed for 2 minutes prior to use.
Application	Brushing, rolling, or doctor blade.
Curing	Excellent results have been obtained by convection curing for 30 minutes @ 80°C. Optimum cure cycles using radiant or convection conveyer ovens are best determined experimentally. Product may also be cured for 24 to 72 hours @ room temperature (25°C)
Cleanup (Uncured Epoxy)	Use Isopropanol, Acetone, MEK, or Aromatic Hydrocarbon solvents.

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