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Electrodag® 452SS

Ultraviolet Curable Dielectric Coating

DESCRIPTION

Electrodag 452SS is a screen printable, UV curable dielectric coating designed to be used as an insulator for printed circuitry. The excellent intercoat adhesion with Electrodag silver and carbon coatings provides superior creasability and eliminates cracking of conductive traces near mechanical connectors.

TYPICAL APPLICATIONS

- Insulating coating
- Tail coatings for membrane switches
- Spacers

ADVANTAGES

- Excellent flexibility
- Superior abrasion resistance
- Adheres well to both treated and untreated polyester film
- Provides superior creasability

TYPICAL PROPERTIES (of wet product)

Pigment	: magnesium silicate
Binder	: urethane acrylate
Percent solids	: 100%
Density	: 10.5 lbs/gal (1.25 kg/l)
Viscosity	: 12,000 mPa·s (cps) (#5 spindle, 20 rpm Brookfield RVT)
Color	: translucent green; also available in a translucent clear version as ML 25208
Flash point	: > 200°F (>93°C) Tag closed cup
VOC	: none

TYPICAL PROPERTIES (as cured)

Coverage	: 1,600 sq ft/gal @ 1 mil (41.29 m ² /kg @ 25 μm)
Maximum service temperature	: 350°F (177°C)
Dielectric constant	: 5.09 (ASTM D-150)
Dielectric strength	: 2400 volts AC @ 1mil (ASTM-D-149 Method A)

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**APPLICATION
DETAILS**

Mixing/Blending/Dilution

This product is supplied ready for use and **should not be diluted**. Stir **Electrodag 452SS** gently prior to each use, mixing well from the bottom of the container, avoiding excessive heat or air entrapment.

Application

Screen size : 160-330 mesh polyester
 Emulsion : diazo sensitized direct photo film
 Film thickness : 160 mesh 1.1 mil (27.5µm)
 : 200 mesh 0.7-0.8 mil (17.5-20.0 µm)
 : 300 mesh 0.4 mil (10.0 µm)
 Recommended film thickness : 0.8-1.0 mil (20.0-25.0 µm) for
 crossovers. Use either one pass with
 160 mesh or two passes with a 300
 mesh polyester screen

Curing

Curing @ 1 mil (25 µm)
 thickness : 0.3-0.6 joule/cm² (as measured with an
 EIT Radiometer) - Run a cure ladder
 test to optimize cure for your particular
 equipment. Use a standard medium
 pressure mercury "H" bulb.

Cleanup

Uncured resin may be cleaned up with MEK isopropyl alcohol, or other similar solvents.

**STORAGE/SHIPPING
HANDLING**

Keep from freezing. Keep container tightly closed when not in use. Store in a cool, well ventilated area. Keep away from heat, sparks, and open flame. Protect material from direct sunlight. Shelf life is 6 months under original seal. Ground and bond containers when transferring materials. Empty containers may retain hazardous properties. Follow all MSDS/label warnings even after container is emptied.

**APPLICATION
ASSISTANCE**

Acheson's **Application Specialists** are available to assist you in production start-up with **Electrodag 452SS**. For more information, contact Acheson Colloids Company, (810) 984-5581, fax (810) 984-1446, web.mail@nstarch.com, or visit our website at www.achesonindustries.com.

HEALTH & SAFETY

Flammable. Harmful if swallowed, inhaled, or absorbed through skin. May cause eye irritation. Wash thoroughly after handling. Keep away from heat, sparks, and open flame. Keep container tightly closed when not in use. Use with adequate ventilation. Avoid breathing vapor. See Acheson's Material Safety Data Sheet for proper first aid instructions.

NOTE:

Electrodag is a registered trademark of Acheson Industries.