

SunTronic UV LED Curing Dielectric Green DSUL4601G

Product Description

DSUL4601G is a green UV LED curing dielectric designed to be screen printed to form an insulating layer in a variety of electronic devices and printed circuitry constructions. It is specifically formulated to be cured by UV LED lamp.

Typical uses include insulation between circuit crossovers in membrane switches or isolation of active layers in solar cell.

DSUL4601G has excellent adhesion to glass, Copper, PET and most types of ITO.

Typical Properties

| | |
|--|------------------------------|
| Volume Resistivity | $>10^{14} \Omega/\text{mil}$ |
| Breakdown Voltage (DC) | 2,800-3,200 V/mil |
| Specific Gravity | 1.24-1.25 |
| Viscosity (Brookfield CAP @25 °C) | 55-65 poise |
| Color | Translucent Green |
| Flashpoint (CC) | $>200^{\circ}\text{C}$ |
| Coverage | 35-40 m ² /kg/mil |
| Shelf-life | 12 months |
| Max. Service Temp. | 175°C |

Application and Processing

DSUL4601G is supplied ready for use, but should be lightly stirred before use. If viscosity reduction is required, use a maximum of 2% of ER-UV04 thinner by weight.

DSUL4601G is suitable for use on hand, semi-automatic or fully automatic screen printing machines. Polyester or Stainless screens with mesh count 196-305 threads/inch (77-120 threads/cm) can be used depending on desired ink film thickness. Printing two layers is recommended for maximum dielectric properties and to minimize voids. A total cured deposit of 0.75-2.0 mil may be required to meet specific insulation targets.

Typical Cured Deposits:

196 threads/inch (77 threads/cm): 0.75-1.0 mil

305 threads/inch (120 threads/cm): 0.3-0.5 mil

DSUL4601G must be shielded from sunlight or high-intensity light to prevent on-screen curing during prolonged production stoppages.

Cleaning with ER-SOLV01 thinner followed by cleaning with Acetone is recommended. Relevant Safety Data Sheet (SDS) should be read carefully prior to use.

Drying/Curing

DSUL4601G can be cured with a 8 Watt/cm² or higher output LED unit with 395nm wavelength. The distance from lamp to substrate should be 5mm or less to ensure good cure. The conveyor belt speed is 25-50 feet/min.

Storage

Store in sealed containers in a cool, dry place (5-32 °C/40-90 °F).

Although the information presented here is believed to be reliable, Sun Chemical Corporation makes no representation or guarantee to its accuracy, completeness or reliability of the information. All recommendations and suggestions are made without guarantee, since the conditions of use are beyond our control. There is no implied warranty of merchantability or fitness for purpose of the product or products described herein. In no event shall Sun Chemical Corporation be liable for damages of any nature arising out of the use or reliance upon the information. Sun Chemical Corporation expressly disclaims that the use of any material referenced herein, either alone or in combination with other materials, shall be free of rightful claim of any third party including a claim of infringement. The observance of all legal regulations and patents is the responsibility of the user. March 2017

SUNCHEMICAL and SUNTRONIC are registered trademarks of Sun Chemical Corporation in the United States and other countries. DIC is a registered trademark of DIC Corporation in the United States and other countries. Copyright © 2016 Sun Chemical Corporation. All rights reserved.

Sun Chemical Electronic Materials, 2445 Production Drive, St. Charles, IL 60174, USA; Tel +1 (630) 513-5348, Fax +1 (630) 587-5226

www.sunchemical.com