

# LOCTITE LDAG EL-016 E&C

September 2014

## PRODUCT DESCRIPTION

LOCTITE LDAG EL-016 E&C provides the following product characteristics:

<b>Technology</b>	Thermoplastic
<b>Appearance</b>	Translucent
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Applicable with manual and semi automatic screen printing equipment</li> <li>• Non-critical, flexible low temperature drying cycles</li> <li>• Excellent adhesion to polyester film</li> <li>• More cost effective alternative for ITO foil</li> </ul>
<b>Cure</b>	Heat cure
<b>Application</b>	Assembly
<b>Typical Assembly Applications</b>	Membrane switches, Electroluminescent lamps and Protection against electrostatic discharge (ESD)

LOCTITE LDAG EL-016 E&C screen printable ink consist of very finely divided translucent conductive pigment particles in a thermoplastic resin . It is specifically designed for use as a translucent conductive coating on polyester foil. This material can be used to print cost effective, small size EL lamps.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield , 20 °C, mPa·s (cP):	
Speed 20 rpm	6,000
Density, Kg/m <sup>3</sup>	1,140
Solids Content, %	34.5
Theoretical coverage @ 10 µm coating thickness, m <sup>2</sup> /kg	20
Shelf Life @5 to 30°C, days (from date of qualification in original seal)	365
Flash Point , °C	78

## TYPICAL SCREEN PRINTING PROCESS

### Printing Equipment Type

- Manual
- Semi-automatic

### Recommended Screen Type

Polyester screen , threads/cm 60 to 90

### Recommended Squeegee

Polyurethane , Shore Hardness 70 to 80

### Emulsion Thickness

Direct capillary film or Emulsion, µm 35

### Recommended Coating Thickness

In one print pass, µm 5 to 8

The blended ink should be applied to the screen in a quantity that can be printed and consumed within 30 minutes.

LOCTITE LDAG EL-016 E&C can be printed with a sharp squeegee through the screen type indicated. Thinner layers provides better opacity but conductivity is better with thicker layers. For larger size (>5 x 5 cm) EL lamps, it could be necessary to apply a double layer to obtain sufficient conductivity.

## TYPICAL DRYING CYCLE

### Recommended Drying Cycle

10 to 15 minutes @ 120°C

In order to optimize processing speeds, a cure ladder should be performed on the equipment to be used, due to variations between individual ovens.

The above cure profile is a guideline recommendation. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

## TYPICAL PROPERTIES OF CURED MATERIAL

### Electrical Properties:

Sheet Resistance @ 25µm dry coating thickness, 10 Kohm/sq

## GENERAL INFORMATION

**For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).**

## DIRECTIONS FOR USE

1. LOCTITE LDAG EL-016 E&C is supplied ready for use and does not require dilution.
2. LOCTITE LDAG EL-016 E&C should be thoroughly stirred prior to use. Avoid rapid stirring as this causes air entrapment.
3. Should thinning become necessary, dilute 1 to 3% by weight with Butylglycol (Cellosolve acetate).
4. If a gel structure forms after extended storage, the product may be warmed slightly in a water bath (not exceeding 65 °C) and stirred.

## Clean-up

The equipment can be cleaned with MEK, MIBK or similar solvents.

**Storage**

Store product in the unopened container in a cool dry well ventilated area. Storage information may be indicated on the product container labeling.

**Optimal Storage : 5 to 30 °C**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

**Not for product specifications**

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} = \text{N/mm}^2$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Disclaimer****Note:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 0.1