

LOCTITE EDAG 6033SS E&C

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PRODUCT DESCRIPTION

LOCTITE EDAG 6033SS E&C provides the following product characteristics:

Technology	Thermoplastic
Appearance	Silver
Cure	Hot air drying
Product Benefits	<ul style="list-style-type: none"> • Applicable with manual and semi-automatic • Excellent screen residence time • Flexible low temperature drying cycles • Excellent adhesion to polyester film • Good flexibility
Operating Temperature	100 °C
Application	Conductive Ink
Typical Assembly Applications	Membrane touch switches, Flexible circuitry, Heating elements, Sensing devices and shielding against electromagnetic interference

LOCTITE EDAG 6033SS E&C screen printable ink consist of very finely divided silver and carbon particles dispersed in thermoplastic resin. In spite of containing less silver than the standard inks, this product maintains low electrical resistance and good physical properties. The lower silver content offers increased protection against silver migration and fluctuations of silver bullion prices. LOCTITE EDAG 6033SS E&C is designed for use in the production of low voltage circuitry on polyester film.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content, %	69
Viscosity, Brookfield , 20 °C, mPa·s (cP):	
Speed 20 rpm	11,500
Density, Kg/m ³	2,140
Shelf Life @5 to 25°C, days (from date of qualification in original seal)	365
Coverage , m ² /kg:	
Wet product @ 10 µm dry coating thickness	18
Flash Point , °C	110

TYPICAL SCREEN PRINTING PROCESS

Printing Equipment Type

Manual
Semi-automatic
High speed reel-to-reel

Recommended Screen Type

Monofilament polyester screen, threads/cm 68 to 110
Stainless steel screen, T/HD 90 to 154

Recommended Squeegee

Polyurethane , durometer 70 to 75

Emulsion Thickness

Emulsion Thickness , µm 20 to 40

Applied Dry Coating Thickness

Applied Dry Coating Thickness, µm 7 to 12

LOCTITE EDAG 6033SS E&C is supplied ready-for-use and hence does not require dilution. The product should be thoroughly homogenized before printing. Avoid rapid stirring as this causes air entrapment. If dilution is deemed necessary, dilute with LOCTITE EDAG DIL 1 ("Carbitol" acetate) (1-2% by weight).

TYPICAL DRYING CYCLE

Recommended Drying Cycle

Conventional Air Circulated Oven:

30 minutes @ 90°C or
15minutes @ 120°C

LOCTITE EDAG 6033SS E&C can be dried immediately after printing at temperatures between 80 to 140°C. The higher the temperature, the lower the sheet resistance and the better the mechanical properties.

For high speed production jet drying, infra red drying and drying in high speed reel-to-reel equipment can be used successfully.

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

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties :

Adhesion , ASTM 3359 Method B, grade 5B

Electrical Properties:

Sheet Resistance @ 25µm dry coating thickness, 0.04
ohms/sq

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. LOCTITE EDAG 6033SS E&C is supplied ready for use and does not require dilution.
2. Stir LOCTITE EDAG 6033SS E&C prior to each use.
3. Avoid rapid stirring as this causes air entrapment.
4. If dilution is necessary, use LOCTITE EDAG DIL 1 , (1 to 2% by weight).

Clean-up

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

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Store in a cool, well ventilated area.

Optimal Storage : 5 to 25 °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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