

LOCTITE SS 24600 E&C

August 2014

PRODUCT DESCRIPTION

LOCTITE SS 24600 E&C provides the following product characteristics:

Technology	Thermoplastic
Appearance	Black liquid
Operating Temperature - Continuous	104°C
Product Benefits	- Suitable for high speed flexographic or rotogravure printing - Easily applied by spray, flexigraphic or rotogravure print techniques
Cure	Air dry
Application	Conductive coating
Typical Assembly Applications	- Electronic circuitry - Flexible conductive coatings for plastics - EMI shielding - Flexographic and rotogravure printed circuits - Bio and medical sensors

LOCTITE SS 24600 E&C is a dispersion of finely divided graphite in a thermoplastic resin that rapidly air dries to form a flexible conductive coating. LOCTITE SS 24600 E&C is fully miscible with LOCTITE EDAG PD-055 E&C to provide a range of resistances between 0.1 to 40 ohms/sq.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content by Weight, %	38
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP): Spindle 4, speed 20 rpm	3,500
Density, kg/l	1.08
Theoretical coverage @ 25, m ² /l	9.1
VOC, g/l	681
Shelf Life @<32°C, days (from date of qualification in original seal)	730
Flash Point , Tag Closed Cup Flash Tester, °C	14

TYPICAL DRYING CYCLE

Recommended Drying Cycle

Air Dry approximately 10 minutes, depending on humidity

Air dry at the recommended drying time before carrying out resistance checks.

Drying time for production operations can be accelerated by passing the coated parts or printed web through infrared heat or through batch or conveyor ovens.

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

Coating resistance may vary by controlling the film thickness.

Physical Properties

Pencil hardness	HB
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Electrical Properties

Sheet Resistance @ 25µm film thickness, ohms/sq	<40
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GENERAL INFORMATION

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

DIRECTIONS FOR USE

- Keep from freezing.
- Protect material from direct sunlight
- Keep product container tightly closed when not in use
- Ground and bond containers when transferring materials
- Surface Preparation**
 - Surface to be coated must be dry and free on contaminants such as oil or chemical residues.
- Mixing/Dilution**
 - For spray application, using a mechanical stirrer or paint shaker, mix LOCTITE SS 24600 E&C thoroughly until it is of uniform consistency. Check to see that no sediment remains in the bottom of the container.
 - Pour into a suitable container for dilution (e.g., pressure pot, etc.).
 - LOCTITE SS 24600 E&C should initially be diluted 1:1 by volume with n-Propylacetate. Final production dilution ratios may vary slightly according to individual needs.
 - To dilute, add solvent to LOCTITE SS 24600 E&C and continue stirring until mixture is of uniform color.
- Spray Application**
 - For small production work prototypes, a suction cup gun may be used, providing LOCTITE SS 24600 E&C is thoroughly mixed prior to spray application.
 - For intermediate production runs or many small parts, propeller-type attachments should be used on the suction gun to ensure coating uniformity.
 - Full production is most efficiently handled with propeller agitated pressure pot systems.
 - Handle LOCTITE SS 24600 E&C as you would a quality automotive lacquer. Avoid dry spray as this will cause poor adhesion.
 - To reduce overspray, use the minimum atomization pressure required for adequate coverage.
- Printing**
 - LOCTITE SS 24600 E&C should be applied 5 to 12 µm dry film thickness, depending on function or accompanying conductive layers.
 - One or two passes are required to build a film thickness of 12 µm.
 - Flexographic transfer plates can be half-toned or textured to enhance thicker lay downs.

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.

Empty containers may retain hazardous properties.

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

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

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 0.2