LOCTITE EDAG 478SS E&C

PRODUCT DESCRIPTION

LOCTITE EDAG 478SS E&C provides the following product characteristics:

Technology	Polyester
Appearance	Silver
Cure	Heat cure
Operating Temperature-Maximum	200ºC
Product Benefits	• Very low sheet resistance • Excellent abrasion resistance and hardness • Extended screen residence time • Superior adhesion to polyester film • High Tg to prevent blocking • Excellent creasability • Compatible with surface mount epoxy systems
Application	Conductive Ink
Typical Assembly Applications	• Membrane switches • Flexible circuits • Digitizers • Displays

LOCTITE EDAG 478SS E&C conductive, silver-based polymer thick film ink specifically designed for screen printing onto membrane switches.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content by Weight, %	73
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):	
Spindle 6, speed 20 rpm	20,000
Density, kg/l	2.52
Shelf Life @ -12 to 27 °C (from date of qualification in original seal), days	365
Flash Point , Tag Closed Cup Flash Tester, ºC	110

TYPICAL SCREEN PRINTING PROCESS

This product is applied by standard screen printing techniques. The dried film thickness and final resistance is influenced by a number of factors, including screen mesh size, squeegee material, screen material, and emulsion thickness.

Recommended Thickness, dried, μm	7.5 to 12.5
Emulsion Thickness , Solvent resistant emulsion , μm	20 to 37.5
Screen Type:	
Monofilament polyester screen, mesh	157 to 280
Stainless steel screen, mesh	165 to 325
Squeegee (polyurethane or other solvent resistant material):	
For use on Polyester screens, durometer	60
For use on Stainless steel screens, durometer	70

TYPICAL CURING PERFORMANCE

LOCTITE EDAG 478SS E&C can be cured at temperatures of 200°F (93°C) and up. Increasing the temperature will also reduce the time needed to achieve a final cure. For example, at 200°F (93°C) cure for 15 minutes; at 250°F (121°C) cure for 5 minutes; at 300°F (150°C) cure for 2 minutes. Higher temperatures for a longer duration will increase conductivity and improve film properties.

Percent Volatiles

VOC, g/l	660

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

Physical Properties

Pencil hardness	B
Theoretical Coverage @ 25 μm coating thickness:	
sq ft/gal	555
m² /kg	5.41

Electrical Properties

Sheet Resistance , 25 μm thickness, ohms/sq	<0.015

GENERAL INFORMATION

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

DIRECTIONS FOR USE

Mixing/Dilution

1. LOCTITE EDAG 478SS E&C is supplied ready for use.
2. Should thinning become necessary, dilute 5% by weight with carbitol acetate.

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 : 12 to 27 °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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa = N/mm²
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = 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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