Technical Data Sheet

LOCTITE EDAG 976SS HV E&C

September 2012

PRODUCT DESCRIPTION

LOCTITE EDAG 976SS HV E&C provides the following product characteristics:

Technology	Thermoset Resin
Appearance	Silver
Filler Type	Silver
Product Benefits	• Highly conductive • Screen printable • Excellent screen residence time • Very low sheet resistance • Excellent adhesion • Resistant to wave soldering • Solvent resistant
Cure	Heat cure
Application	Conductive Ink
Key Substrates	Phenolic paper, Epoxy paper, Glass epoxy, Copper laminated and Plain substrates
Typical Assembly Applications	Conductive tracks, pads and jumpers and Through-hole printing

LOCTITE EDAG 976SS HV E&C is designed for use in the production of rigid printed circuit boards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content, %	78
Viscosity, Brookfield , mPa·s (cP):	
Speed 20 rpm, @ 20ºC	30,000
Density, kg/cm³	2,700
Theoretical coverage, m² /kg:	
@ 10µm dry coating thickness	18
Shelf Life @ 4 to 8ºC , year:	
From date of qualification in original seal	1
Flash Point , ºC	100

TYPICAL SCREEN PRINTING PROCESS

Emulsion Thickness

Direct emulsion when printing conductive jumpers	20 to 40
Capillary film for through-hole metallization	50 to 70

Recommended Squeegee

Polyurethane , Shore Hardness	60 to 75

Recommended Screen Type

Monofilament polyester & Stainless Steel , threads/cm	40 to 110

Printing Equipment Type

Manual
Semi-automatic

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

Conductive Tracks

Predry 15 minutes @ 70 °C
Cure 30 minutes @ 150 to 160 °C

Infrared curing can also be used successfully

Through Hole Printing

Dry 4 hours @ 70 °C
Cure 30 minutes @ 150 to 160 °C

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

Cured as coating on FR4

Physical Properties

Adhesion , grade	5B

Electrical Properties

Sheet Resistivity @ 25µm, ohms/sq	<0.025
Hole Resistivity full hole, ohms	<0.02

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Bring product to room temperature prior to use.

2. **Mixing/Dilution**

- Mix thoroughly with plastic spatula or mechanical stirrer from bottom of container , careful not to whip air in to the product. Using a plastic spatula will decrease the possibility of introducing plastic grindings from the container sidewalls into the product, which could damage the screen.
- Depending on the application, LOCTITE EDAG 976SS HV E&C can be diluted with 1 to 10% by weight with Electrodag™ Diluent 1 ("Carbitrol" acetate).
- Typical dilution ratios for printing conductive tracks is 4% and for printing through hole is 10%.

Clean-up
To clean screen and equipment, use Methylethylketone (MEK), MIBK or similar solvents

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

Optimal Storage : 4 to 8 °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

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