

LOCTITE EDAG PF 050 E&C

October 2018

PRODUCT DESCRIPTION

LOCTITE EDAG PF 050 E&C provides the following product characteristics:

Technology	Thermoplastic
Appearance	Silver
Filler Type	Silver
Solvent	Dibasic ester
Product Benefits	<ul style="list-style-type: none"> • Conductive • Screen printable • Excellent flexibility • Low electrical resistance • Long screen residence time • Long shelf life • Good adhesion • No thinning required • Process ease • Superior fine line printability
Cure	Heat cure
Application	Conductive Ink

LOCTITE EDAG PF 050 E&C is designed for production of flexible circuitry. This material can be used on a variety of substrates.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content by Weight, %	68.5
Viscosity, Brookfield - RVT, mPa·s (cP):	
Spindle 6, speed 20 rpm, @ 30°C	17,500
Density, kg/l	2.39
Theoretical coverage, m ² /kg:	
@ 10 coating thickness	11
@ 25 µm coating thickness	4.4
Shelf Life, from date of qualification in original seal, days	365
Flash Point °C	74

TYPICAL SCREEN PRINTING PROCESS

Recommended Thickness	
Dried, µm	7.5 to 12.5
Emulsion Thickness	
Solvent resistant emulsion, µm	15 to 25
Recommended Squeegee	
Urethane for all screens, durometer	80
Recommended Screen Type	
Polyester screen, mesh	195 to 305
Stainless steel screen, mesh	200 to 270

TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

15 minutes @ 121°C or
3 minutes @ 140°C

Percent Volatiles

VOC, g/l 751

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

Volume Resistivity, ohm/sq/mil <0.01

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. LOCTITE EDAG PF 050 E&C should be thoroughly stirred prior to use. Avoid rapid stirring as this causes air entrapment..
2. Bring product to room temperature prior to use..
3. LOCTITE EDAG PF 050 E&C is supplied ready for use. Should thinning become necessary, dilute 1 to 4% by weight with Electrodag DBE (dibasic ester)..
4. Keep product container tightly closed when not in use.

CLEAN-UP

To clean screen and equipment, use Methyl ethyl ketone (MEK) 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: 4 to 8°C. Storage below 4°C or greater than 8°C can adversely affect product properties.

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

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

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 0.4

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