Technical Data Sheet

LOCTITE EDAG PF 455BC E&C

July 2018

PRODUCT DESCRIPTION

LOCTITE EDAG PF 455BC E&C provides the following product characteristics:

Technology	Acrylate
Appearance	Translucent
Cure	Ultraviolet (UV) light
Product Benefits	• Excellent printability • Fast UV cure • Adheres well to both treated and untreated polyester film • Good dielectric strength • Compatible for use with Electrodag conductive and dielectric polymer thick film inks • Humidity resistant
Application	Dielectric ink
Key Substrates	Treated and Untreated polyester film

LOCTITE EDAG PF 455BC E&C is formulated as a crossover dielectric and is compatible with other EDAG E&C inks.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content, %	100
Viscosity, Brookfield , 25 °C, mPa·s (cP):	
Speed 20 rpm	13,500
Density, kg/cm³	1,020
Theoretical coverage @ 10µm dry coating thickness, m² /kg	98
Shelf Life @ 5 to 25 °C (from date of qualification in original seal), days	730

TYPICAL SCREEN PRINTING PROCESS

Printing Equipment Type

Manual
Semi-automatic
High speed reel-to-reel

Recommended Screen Type

Monofilament polyester screen, threads/cm	61 to 120
Stainless steel screen , threads/cm	77 to 160

Recommended Squeegee

Polyurethane , durometer	70 to 75

Emulsion Thickness

Emulsion Thickness , µm	20 to 40

Applied Dry Coating Thickness

61 threads/cm screen, µm	25
77 threads/cm screen, µm	18
120 threads/cm screen, µm	10

Recommended Dry Film Thickness

For crossovers, applied in two passes for a pore-free 25 to 30 crossover coating, µm

TYPICAL CURING PERFORMANCE

Recommended UV Cure Condition

UV lamp 80Watt/cm or
UV lamp 120Watt/cm

When applying LOCTITE EDAG PF 455BC E&C as a crossover, two layers of approximately 12 to 15µm each should be applied. Cure both layers at an energy level of 0.5Joule/cm² to obtain a good inter-coat adhesion between the first and second layer and to obtain a maximum adhesion of the crossover.

When using LOCTITE EDAG PF 455BC E&C as a crossover, be sure to dry the inks printed over it within 5 minutes. Do not let the inks printed over LOCTITE EDAG PF 455BC E&C air dry for extended periods of time.

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

Adhesion, grade	5B
Pencil hardness	B

Electrical Properties

Sheet Resistivity @ 25µm, ohms/sq	>2×10^9
Breakdown voltage @ 25µm, volts AC	2,800

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. LOCTITE EDAG PF 455BC E&C is supplied ready for use and does not require dilution.
2. Stir LOCTITE EDAG PF 455BC E&C prior to each use.
3. Bring product to room temperature prior to use.
4. Protect against exposure to UV sources such as daylight and fluorescent lighting. Care should be taken to avoid LOCTITE EDAG PF 455BC E&C curing on the screen.

CLEAN-UP

To clean screen and equipment, use Methylethylketone (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.

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
(°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
psi x 145 = N/mm²
MPa = N/mm²
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:
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Reference N/A