



Electrodag 479SS

January 2014

PRODUCT DESCRIPTION

Electrodag 479SS provides the following product characteristics:

Technology	Thermoplastic
Appearance	Silver
Filler Type	Silver
Solvent	Carbitol acetate
Cure	Heat cure
Operating Temperature-Maximum	200°C
Product Benefits	<ul style="list-style-type: none"> • Conductive • Fast drying • Excellent abrasion resistance and hardness • Excellent creasability • Excellent fine line printing • Extended screen residence time • Very low sheet resistance • Superior adhesion to polyester film • Screen printable
Application	Conductive Ink
Typical Assembly Applications	Membrane switches and Flexible circuitry display devices

Electrodag 479SS conductive, silver-based polymer thick film ink specifically designed for screen printing onto membrane switches.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content by Weight, %	74.6
Viscosity, Brookfield - RVT, mPa·s (cP):	
Spindle 6, speed 20 rpm, following 5-min shake 3-hr rest	12,000
Density, kg/l	2.56
Shelf Life @ 2 to 8°C (from date of manufacture), days	365
Flash Point, Tag Closed Cup Flash Tester°C	110

TYPICAL SCREEN PRINTING PROCESS

Recommended Thickness	
Dry Film, µm	7.5 to 12.5
Emulsion Thickness	
Solvent resistant emulsion, µm	20 to 38
Recommended Screen Type	
Monofilament polyester screen, mesh	157 to 280
Stainless steel screen, mesh	165 to 325
Recommended Squeegee	
Polyurethane or other solvent resistant material	
Polyester screen, durometer	60 to 70
Stainless steel screen, durometer	70 to 80

TYPICAL CURING PERFORMANCE

Cure Schedule

15 minutes @ 93°C

Percent Volatiles

VOC, g/l 653

Higher temperatures and longer durations improve conductivity and film properties.

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

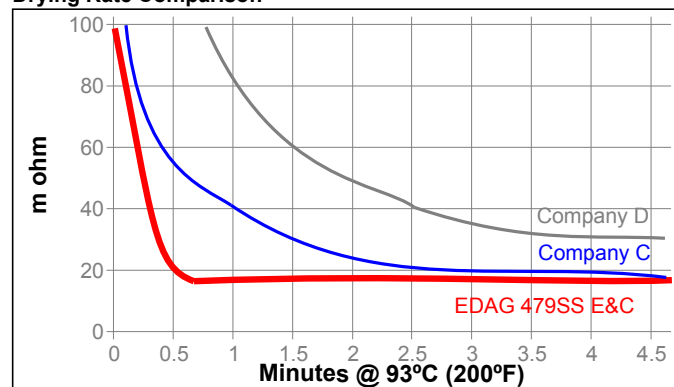
Physical Properties

Pencil hardness 2H
Coverage @ 25µm thickness, m² /kg 5.87

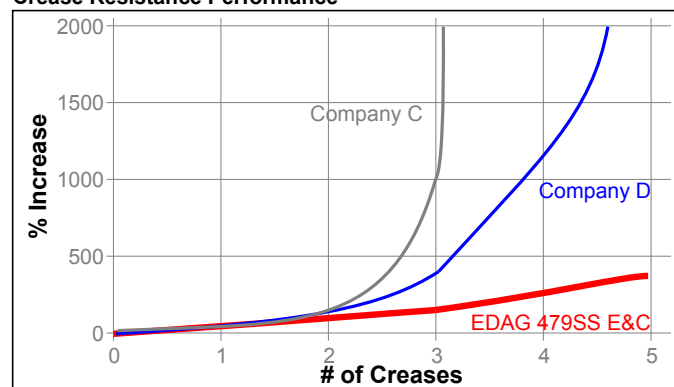
Electrical Properties

Sheet Resistivity, ohms/sq/mil <0.02

Drying Rate Comparison



Crease Resistance Performance



GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Do not expose wet ink to direct sunlight.
2. Do not freeze.
3. Keep product container tightly closed when not in use.
4. Electrodag 479SS is supplied ready for use. Should thinning become necessary, dilute 2% by weight with Carbitol acetate..
5. Electrodag 479SS should be thoroughly stirred prior to use. Avoid rapid stirring as this causes air entrapment..

Clean-up

To clean screen and equipment, use a 25% Carbitol acetate 75% Methyl ethyl ketone (MEK) blend.

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 : 2 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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