



# LOCTITE® EDAG 423SS

January 2025

**PRODUCT DESCRIPTION**

LOCTITE® EDAG 423SS provides the following product characteristics:

Technology	Thermoplastic
Appearance	Dark gray
Operating temperature	105°C
Product benefits	<ul style="list-style-type: none"><li>• Applicable with manual,semi-automatic and high speed reel-to-reel screen printing equipment</li><li>• Excellent screen residence time</li><li>• Non-critical, flexible low temperature drying cycles</li><li>• Excellent adhesion to polyester film</li><li>• Compatible for use with polyester film, polycarbonate film, PVC film, paper and cardboard</li></ul>
Cure	Hot air drying
Application	Conductive ink
Typical assembly applications	Membrane touch switches, Printed resistors, Keyboards, Heating elements, Flexible circuits, Membrane switches and Protection against electrostatic discharge (ESD)
Key substrates	PET, PEN, PI, PVC, Paper

LOCTITE® EDAG 423SS is a conductive carbon ink, which is often used for printing contact areas, protect silver tracks from oxidation. LOCTITE® EDAG 423SS is screen printable and compatible with a large range of silver inks LOCTITE® EDAG 479SS, LOCTITE® EDAG 725A, LOCTITE® ECI 1010.

**TYPICAL PROPERTIES OF UNDRIED MATERIAL**

Solids content, %	36
Viscosity, Brookfield RVT, 20°C, after 15 minutes, mPa·s (cP)	
Speed 20 rpm	23,000
Density, g/cm <sup>3</sup>	1.1
Theoretical coverage, wet product, m <sup>2</sup> /kg	
@ 10µm dry coating thickness	20
Shelf life @ 5 to 30°C, (package type dependent), days*	≥ 365
Flash point, DIN 53213, °C	78

\*For additional information, contact your Henkel representative

**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 90
Stainless steel screen, threads/cm	77 to 110

**Recommended screen type**

Polyurethane, Durometer	70 to 75
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**Emulsion thickness**

Emulsion thickness, µm	20 to 40
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**Applied dry coating thickness**

Applied dry coating thickness, µm	6 to 10
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**TYPICAL DRYING CYCLE**

**Recommended drying cycle**

Conventional air circulated oven  
30 minutes @ 90°C

The above drying profile is a guideline recommendation. Conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer drying equipment, oven loading and actual oven temperatures.

**TYPICAL PROPERTIES OF DRIED MATERIAL**

Dry Coating on polyester film dried 30 minutes @ 90°C

**Physical properties**

Adhesion, ASTM D3359 Method B, grade	5B
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**Electrical properties**

Sheet resistance, Ohm/sq/25µm	
4-point probe	33
after 15 min @ 120°C	37

**GENERAL INFORMATION**

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



## Directions for use

1. LOCTITE® EDAG 423SS is supplied ready for use.
2. Should dilution be necessary, use dbutyl glycol acetate (CAS: 112-07-2). Henkel recommends a maximum of 10 wt%. This should be accomplished by adding solvent at 5 wt% intervals until desired viscosity and printability is achieved.
3. Mix thoroughly before use to ensure the entire ink volume is homogenous. A slow speed propeller may be utilized to mix until product is uniform. Avoid rapid stirring as this causes air entrapment.
4. If a gel structure forms after extended storage, the product may be warmed slightly in a water bath (not exceeding 65°C) and stirred.

## Clean up

The screen and equipment can be cleaned with dilution solvent, or esters (butylacetate, propylacetate, or ethylacetate), or ketones (MEK, 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 30°C. Storage below 0°C or greater than 40°C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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 Henkel 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 the specifications of this product.

## Conversions

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

## Disclaimer

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