

LOCTITE ECI 1010 E&C

March 2018

PRODUCT DESCRIPTION

LOCTITE ECI 1010 E&C provides the following product characteristics:

Technology	Thermoplastic
Appearance	Gray paste
Filler Type	Silver
Product Benefits	<ul style="list-style-type: none"> • Flexible • Good adhesion • High conductivity
Operating Temperature-Maximum	100°C
Cure	Hot air drying
Application	Conductive Ink
Typical Assembly Applications	Flexible printed circuits, RFID and other conductive circuits
Key Substrates	PET substrates

LOCTITE ECI 1010 E&C is a screen printable, conductive ink .

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content (TGA), %	62
Density, g/ml	2.1
Viscosity @ 1.5 s ⁻¹ , Rheometer, mPa·s (cP)	9,000
Thixotropic Index (15/1.5 s ⁻¹)	1.9
Theoretical coverage @ 10 µm dry film thickness, m ² /kg	10.6
Shelf Life @ 2 to 8°C (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Drying Cycle

15 minutes @ 120°C or

2minutes @ 150°C

LOCTITE ECI 1010 E&C can be dried using forced air or infrared systems. Higher temperatures for longer time exposure will improve the performance. Care should be taken with infrared. Too much energy can destroy the coating. Design drying rates for the maximum the substrate and production speeds can tolerate.

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 CURED MATERIAL

Physical Properties

Adhesion, Cross Hatch, grade	5B
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Electrical Properties

Sheet Resistance, ohm/sq/25 µm	0.007
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GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Surface Preparation

- Clean surface thoroughly prior to application.

2. Mixing/Dilution

- Mix thoroughly before use to ensure it is homogenous. A slow speed propeller may be utilized to mix until product is uniform.
- If needed, the ink can be diluted with Butyl glycol acetate.

3. Application

- LOCTITE ECI 1010 E&C may be applied by screen printing method.
- Recommended screen and printing parameters are:

Screen Type	Polyester screen	Polyester screen
Screen mesh	160 to 200 mesh	
Emulsion Thickness , µm	10 to 40	
Squeegee Hardness	70 to 90	

CLEAN-UP

1. The equipment can be cleaned with esters (butylacetate, ethylacetate) or ketones (MIBK, MEK).

STORAGE:

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

Optimal Storage: 2 to 8°C. Storage below 0°C or above 30°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

(°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

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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 2

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