

# LOCTITE ECI 1010 E&C

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## PRODUCT DESCRIPTION

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

<b>Technology</b>	Thermoplastic
<b>Appearance</b>	Gray paste
<b>Filler Type</b>	Silver
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Flexible</li> <li>• Good adhesion</li> <li>• High conductivity</li> </ul>
<b>Operating Temperature-Maximum</b>	100°C
<b>Cure</b>	Hot air drying
<b>Application</b>	Conductive Ink
<b>Typical Assembly Applications</b>	Flexible printed circuits, RFID and other conductive circuits
<b>Key Substrates</b>	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 <sup>-1</sup> , Rheometer, mPa·s (cP)	9,000
Thixotropic Index (15/1.5 s <sup>-1</sup> )	1.9
Theoretical coverage @ 10 µm dry film thickness, m <sup>2</sup> /kg	10.6
Shelf Life @ 2 to 8°C (from date of manufacture), days	180
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 Material Safety Data Sheet, (MSDS).

## 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
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/mm<sup>2</sup>  
 MPa = N/mm<sup>2</sup>  
 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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## Reference 1