

# LOCTITE ECI 1204 E&C

June 2023

**PRODUCT DESCRIPTION**

LOCTITE ECI 1204 E&C provides the following product characteristics:

<b>Technology</b>	Solvent based ink
<b>Appearance</b>	Silver liquid
<b>Filler Type</b>	Silver
<b>Product Benefits</b>	<ul style="list-style-type: none"><li>• High conductivity</li><li>• Excellent adhesion</li><li>• Suitable for pad printing</li><li>• Low temperature drying</li></ul>
<b>Cure</b>	Heat dry
<b>Application</b>	Inks and coatings, Electrically conductive ink
<b>Typical Application(s)</b>	Pad printable circuit
<b>Key Substrates</b>	PA+Fiber, PC, PBT, PPS, Ceramic, Anodized Aluminum

LOCTITE ECI 1204 E&C electrically conductive ink is specially designed for use in pad printable conductive contact point assembly.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

Viscosity, Brookfield , mPa·s (cP):	
@ 20 s <sup>-1</sup>	8,500
Solids Content @ 200°C, %	82±2
Shelf Life @ 2 to 8°C, days	365

**TYPICAL DRYING CYCLE****Recommended Drying Cycle**

2 to 4 hours @ 80 to 90°C

LOCTITE ECI 1204 E&C is a low temperature processing material which builds up conductivity in time at 80 to 120°C. Higher drying temperature will give better conductivity and abrasion resistance on the substrate.

LOCTITE ECI 1204 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 cure profile is a guideline recommendation. These cure conditions (time and temperature) may vary based on customers' experience and specific application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

**TYPICAL PROPERTIES OF CURED MATERIAL****Physical Properties**

Adhesion on PC substrate, Cross Hatch, grade 5B

**Electrical Properties**

Volume Resistivity , ohm-cm 1×10<sup>-4</sup>

**GENERAL INFORMATION**

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

**DIRECTIONS FOR USE****1. Surface Preparation**

- Keep surface clean before use to avoid possible contamination.

**2. Mixing/Dilution**

- Stir to ensure homogeneity before use.
- Avoid rapid stirring, as this causes air entrapment.

**3. Cleanup**

- The equipment can be cleaned with ethanol.

**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 2°C or above 8°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 Henkel Representative.



**Not for product specifications**

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of this product.

**Conversions**

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

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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. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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