

# LOCTITE ABLESTIK CE 3511 P

December 2016

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK CE 3511 P provides the following product characteristics:

|                                      |                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Technology</b>                    | Epoxy                                                                                                                                                                                                                                                                                                                  |
| <b>Appearance</b>                    | Silver                                                                                                                                                                                                                                                                                                                 |
| <b>Filler Type</b>                   | Silver                                                                                                                                                                                                                                                                                                                 |
| <b>Product Benefits</b>              | <ul style="list-style-type: none"> <li>• One component</li> <li>• Electrically conductive</li> <li>• Fast cure at high temperatures</li> <li>• Long shelf life at room temperature</li> <li>• No bleed</li> <li>• Excellent electrical conductivity</li> <li>• High bond strength</li> <li>• Heat resistant</li> </ul> |
| <b>Cure</b>                          | Heat cure                                                                                                                                                                                                                                                                                                              |
| <b>Operating Temperature</b>         | 150 °C                                                                                                                                                                                                                                                                                                                 |
| <b>Application</b>                   | Electrically Conductive Adhesive                                                                                                                                                                                                                                                                                       |
| <b>Typical Assembly Applications</b> | Die attach, Component bonding and Heat sensitive components                                                                                                                                                                                                                                                            |

LOCTITE ABLESTIK CE 3511 P electrically conductive adhesive is designed for circuit assembly applications.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

|                                        |        |
|----------------------------------------|--------|
| Density, g/cm <sup>3</sup>             | 3.05   |
| Brookfield Viscosity # TD, mPa·s (cP): |        |
| Speed 10 rpm                           | 47,500 |
| Pot Life @ 18 to 25°C, days            | >14    |
| Shelf Life @ -25 to -18°C, days        | 182    |
| Flash Point - See SDS                  |        |

## TYPICAL CURING PERFORMANCE Cure Schedule

60 minutes @ 100°C or  
45 minutes @ 120°C or  
20 minutes @ 150°C or  
≤60 seconds @ 180 to 190°C (Hot plate cure)

Low temperature cure will reduce electrical conductivity.

The above cure profiles are guideline recommendations. 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 :

|                                                    |     |
|----------------------------------------------------|-----|
| Glass Transition Temperature (T <sub>g</sub> ), °C | 100 |
| Coefficient of Linear Thermal Expansion, ppm/°C    | 124 |

### Electrical Properties:

|                             |                    |
|-----------------------------|--------------------|
| Volume Resistivity, ohm-cm: |                    |
| Cure @ 180°C                | 2×10 <sup>-4</sup> |
| Cure @ 100°C                | 8×10 <sup>-4</sup> |

## TYPICAL PERFORMANCE OF CURED MATERIAL

|                            |                      |               |
|----------------------------|----------------------|---------------|
| Tensile Lap Shear Strength | N/mm <sup>2</sup> 12 | (psi) (1,740) |
|----------------------------|----------------------|---------------|

## GENERAL INFORMATION

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

### THAWING:

1. Allow container to reach room temperature before use.

### DIRECTIONS FOR USE

1. The surfaces on which the adhesive has to be applied should be clean, dry and free from all dust
2. LOCTITE ABLESTIK CE 3511 P is designed for dispensing

### 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.

### STORAGE:

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

### Optimal Storage : -25 to -18 °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.

### 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

## Disclaimer

### Note:

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 1