

# LOCTITE STYCAST PC 40-UM

September 2012

## PRODUCT DESCRIPTION

LOCTITE STYCAST PC 40-UM provides the following product characteristics:

|                    |                                                                              |
|--------------------|------------------------------------------------------------------------------|
| <b>Technology</b>  | Urethane Acrylate                                                            |
| <b>Appearance</b>  | Clear liquid                                                                 |
| <b>Color</b>       | Gardener 1                                                                   |
| <b>Cure</b>        | Ultraviolet (UV) light activation followed by room temperature moisture cure |
| <b>Application</b> | Conformal coating                                                            |

LOCTITE STYCAST PC 40-UM is a single component, VOC free conformal coating. This product is specifically formulated to rapidly gel and immobilise when exposed to U.V. light, and then cure when exposed to atmospheric moisture, thus ensuring optimum performance even in shadowed areas. Thin layer coatings can be gelled, almost instantly, to a depth of 7 mils. LOCTITE STYCAST PC 40-UM fluoresces intensely with black light and exhibits excellent adhesion to a variety of metal, ceramic, and glass filled epoxy surfaces fulfilling the needs of the most demanding environmentally friendly applications in today's PCB marketplace.

## UL Classification

LOCTITE STYCAST PC 40-UM is listed in UL's recognized component index with 94V-0 flammability rating in 1.6mm thickness cross section, File No. E328327.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Typical Properties of Liquid Material

|                               |      |
|-------------------------------|------|
| Specific Gravity @ 25°C       | 1.07 |
| Nominal Viscosity @ 25°C, cps | 500  |

## TYPICAL CURING PERFORMANCE Recommended Curing Conditions

UV activated in 30 seconds @ 300 - 600 mW/cm<sup>2</sup>

Moisture cure for shadow areas on a populated board: 2 to 3 days @ RT for secondary cure.

## TYPICAL PROPERTIES OF CURED MATERIAL

### Physical Properties :

|                                |            |
|--------------------------------|------------|
| Hardness, Shore D              | 80         |
| Continuous Operating Range, °C | -40 to 135 |
| Flammability, 1.6mm, 94V-0     | Passes     |

### Electrical Properties:

|                                       |              |
|---------------------------------------|--------------|
| Dielectric Constant @ 25°C :<br>1 MHz | 2.75 / 0.012 |
|---------------------------------------|--------------|

|                            |                      |
|----------------------------|----------------------|
| Volume Resistivity, ohm-cm | 3.5×10 <sup>16</sup> |
| Surface Resistivity, ohms  | 3.8×10 <sup>16</sup> |

## GENERAL INFORMATION

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

### 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.

Any tank should be pressurized with dry nitrogen.

Note: Do not use AC0305 to dilute with LOCTITE STYCAST PC 40-UM. Xylene is the preferred diluent. Do not use alcohols to clean equipment or dilute LOCTITE STYCAST PC 40-UM as this will advance the product.

### STORAGE:

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

**Storage between 20 and 30°C out of sunlight and in original unopened containers. Refer to packaging specific quote for shelf life information.** Once opened, containers should be purged with dry nitrogen.

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**

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

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**Reference 1**