



PC40-UM

January 2011

PRODUCT DESCRIPTION

PC40-UM provides the following product characteristics:

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

PC40-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. PC40-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

PC40-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/cm²

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 :	
1 MHz	2.75 / 0.012

Volume Resistivity, ohm/cm	3.5×10 ¹⁶
Surface Resistivity, ohms	3.8×10 ¹⁶

GENERAL INFORMATION

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

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 PC40-UM. Xylene is the preferred diluent. Do not use alcohols to clean equipment or dilute PC40-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

(°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
N/mm ² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation and its affiliates ("Henkel") specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel products. Henkel specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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