HumiSeal® 1C49HVF Silicone Encapsulant Technical Data Sheet

HumiSeal® 1C49HVF is a moisture curing, high build, VOC-free and solvent-free silicone encapsulant which provides excellent moisture and environmental protection for printed circuit assemblies. The encapsulant demonstrates outstanding flexibility, fluoresces under UV light for ease of inspection and is repairable. HumiSeal® 1C49HVF may be cured at room or elevated temperatures. HumiSeal® 1C49HVF is recognized under UL File Number E105698 and is RoHS Directive 2011/65/EU compliant.

Properties of HumiSeal® 1C49HVF

Density, per ASTM D1475	0.97 ± 0.03 g/cm^3
Viscosity, per Fed-Std-141, Meth. 4287	27500 ± 7500 centipoise
VOC	0 grams/liter
Working Time, at RT	10 min
Tack free time, at RT	20 min
Recommended Curing Conditions	24 hrs @ RT or 20 min @ 76°C*
Time required to Reach Optimum Properties	7 days
Recommended Stripper	HumiSeal® Stripper 1091
Shelf Life at Room Temperature, DOM	12 months
Flammability, per UL94	V-0
Shore Hardness, A, cured 72 hrs at RT, per ASTM D2240	25
Volume Resistivity, per ASTM D257	4.34 x 10^{18} ohm-cm

*Place an open pan of water in the oven during curing

Application of HumiSeal® 1C49HVF

Conformal coatings can be successfully applied to substrates that have been cleaned prior to coating and also to substrates assembled with low residue, “no clean” materials. Users should perform adequate testing to confirm compatibility between the conformal coating and their particular assembly materials, process conditions and cleanliness level. Please contact HumiSeal for additional information.

1C49HVF is designed for application without additional thinning. Solvents or other thinners should not be mixed with 1C49HVF.

Syringe Application

HumiSeal® 1C49HVF is designed to be applied by hand syringes or automated needle dispensing such as a PVA FC100 needle valve, Asymtek SC-300 in monofilament mode or other automated dispensing equipment.

Brushing

HumiSeal® 1C49HVF may be applied by brush. The actual uniformity of the finished coating will depend on component density and operator technique. Brushes may be cleaned promptly using solvent.

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Storage

HumiSeal® 1C49HVF should be stored at 27°C or below in tightly closed containers away from direct sunlight. If coating is partially used, the container should be purged with dry nitrogen prior to resealing. Prior to use, allow the product to equilibrate for 24 hours at room temperature.

Caution

Application of HumiSeal® encapsulant should be carried out in accordance with local and National Health and Safety regulations.

Use only in well-ventilated areas to avoid inhalation of vapours or spray. Avoid contact with skin and eyes.

Consult SDS prior to use.

Contact HumiSeal®

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