

## HumiSeal® 2C51 Silicone, High Strength Gel Technical Data Sheet

HumiSeal® 2C51 is a two-component high strength, fast curing silicone encapsulating gel supplied as Parts A and B, suitable for general printed circuit board applications. HumiSeal® 2C51 is characterized by room temperature cure and low viscosity for ease of application and contains UV tracer for ease of inspection. The two components of HumiSeal 2C51 are blue and yellow and turn green when mixed. HumiSeal® 2C51 is RoHS Directive EU 2015/863 compliant.

### Properties of Mixed HumiSeal® 2C51

Density (part A&B), per ASTM D1475	0.97 ± 0.03 g/cm <sup>3</sup>
Solids Content, % by weight per Fed-Std-141, Meth. 4044	99.0 %
Viscosity (Part A), per Fed-Std-141, Meth. 4287	275 ± 75 centipoise
Viscosity (Part B), per Fed-Std-141, Meth. 4287	550 ± 150 centipoise
VOC	0 grams/liter
Drying Time to Handle per Fed-Std-141, Meth. 4061	10 minutes
Curing Condition to Reach Optimum Properties	30 minutes @ 70°C or 60 min @ RT
Recommended Stripper	HumiSeal® Stripper 1090
Gel Time at Room Temperature	8-10 minutes
Shelf Life at Room Temperature, DOM	12 months
Hardness, Shore 00	45-55
Volume resistivity per ASTM D257	5.2 x 10 <sup>13</sup> Ohms.cm (52 TΩ.cm)
Dielectric Strength per ASTM D149	434 V/mil

### Application of HumiSeal® 2C51

Cleanliness of the substrate is of extreme importance for the successful application of HumiSeal 2C51. Surfaces must be free of moisture, dirt, wax, grease, flux residues and all other contaminants. Contamination under the coating could cause problems that may lead to assembly failures.

Mixing ratio of Part A to Part B is 1:1 by volume (or weight). Prior to application, HumiSeal® 2C51 Parts A and B should be thoroughly mixed until a homogenous blend is achieved. Vigorous mixing is not recommended as entraps air pockets into mix.

#### Brushing

HumiSeal® 2C51 may be applied by brush after mixing of both parts. Uniformity of the film depends on component density and operator's technique.

#### Spraying

HumiSeal® 2C51 can be sprayed using conventional spraying equipment. Spraying should be done in an environment with adequate ventilation so that the vapour and mist are carried away from the operator.

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### Storage

HumiSeal® 2C51 Parts A and B should be stored away from excessive heat or cold, in tightly closed containers. HumiSeal® 2C51 may be stored at temperatures not exceeding 38 °C (100 °F).

### Caution

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

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

Consult SDS prior to use.

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