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Technical Data Sheet

Bectron[®]

SC 75V1-16

Electronic Silicone Conformal Coating

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Area of application

Coating of electronics such as PCB's used in transportation, hybrids, SMD devices and other discrete components.

Processing methods

Bectron® SC 75V1-16 can be applied by brushing or spraying. The recommended viscosity for spraying is about 800 mPas at 25°C (DIN 58001).

For application, temperature could be increased up to 40°C to obtain the recommended viscosity. A single coating ensures good dielectric insulation and complete protection against humidity.

In order to achieve satisfactory wetting and fault-free adhesion of the conformal coating it is important to ensure compatibility with the soldering paste and flux.

Curing:

at 90°C:	30-40 minutes
at 100°C:	15-20 minutes
at 110°C:	7-10 minute

Exact Timing depends on oven design and ventilation

Description

Bectron® SC 75V1-16 is a transparent silicone conformal coating. Bectron® SC 75V1-16 meets the latest requirements of the electronic industry with low pin corrosion, excellent edge coverage and fast curing at low temperature. It provides superior dielectric properties and moisture protection under environmental stress.

Key Properties:

- Rapid cure at 90°C or more
- High volume resistivity including high humidity conditions
- Good dielectric properties
- Resistant to moisture and dust contamination
- Withstands weak acids & alkalis
- Good adhesion under thermal cycling
- Temperature resistance up to 200°C
- Possible inspection of the coated area by UV light
- Good edge coverage due to thixotropic behavior
- Minimum curing temperature 70°C
- Maximum thickness approx. 200 µ

Storage and stability

Product should be stored in its original sealed container to avoid any potential contamination at a temperature below 35°C. Store accordingly to any specific instruction listed on the product label. Product should be used prior to the expiring date marked on the label.

Handling precautions

The product is RoHS compliant. Refer to the safety data sheet and comply with local regulations relating to industrial health and waste disposal.

SYSTEM SPECIFICATIONS

Property	Conditions	Method	Value	Units
Viscosity	25°C	V18	400 ÷ 800	mPas

TYPICAL PRODUCT CHARACTERISTICS

Property	Value
Colour	Transparent
Spec. gravity 20°C [g/cm ³]	0.98
Shelf Life	6 months

TYPICAL MECHANICAL PROPERTIES OF THE CURED PRODUCT

Test	Value
Mandrel Bend Test	180
Cross Cut Test	GT 0-1
Water absorption, [mg]	23° C, 24 hours 1.5

TYPICAL DIELECTRIC PROPERTIES OF THE CURED PRODUCT

Test	Value
Dielectric Constant 50 Hz, 1000Hz, 10000Hz	23°C 2.9
Dielectric Dissipation Factor 10 KHz	23°C 0.001
Volume Resistivity [Ω • cm]	23°C 3 x 10 ¹⁵
[Ω • cm]	23°C After 7 days in water immersion 5 x 10 ¹⁵
Dielectric Strength [KV/mm]	23°C 49
[KV/mm]	23°C After 7 days in water immersion 49

Our advice given verbally or in writing is based on the present state of our technical knowledge, but is intended as information given without obligation, also with respect to any protective rights held by third parties. It does not relieve your own responsibility to check the products for their suitability to the purposes and processes intended and in accordance with the technical sheets of the products. The application usage and processing of the product are beyond our control and will completely fall into the scope of responsibility of buyers and users. Should there nevertheless be a case of liability from our side, this will be limited to any damage equivalent to the value of the merchandise delivered by us. Naturally, we assume responsibility for the unobjectionable quality of our products, as defined in our general terms and condition.