ELANTAS
Electrical Insulation

EN

Technical Data Sheet

Bectron®

SC 76V1-36

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 and consumer electronics

Processing methods

The coating varnish Bectron® SC 76V1-36 can be applied by brushing or spraying. A single coating ensures good dielectric insulation and complete protection against humidity.

Description

Bectron® SC 76V1-36 is a translucent silicone conformal coating and it is specially formulated to meet the latest requirements of the electronic industry in terms of corrosion. It also provides superior dielectric properties and moisture protection under environmental stress.
Bectron® SC 76V1-36 is a 1 part condensation cure product (Alkoxy) and it will not suffer the typical inhibition problems of addition cure systems. It also shows excellent adhesion to most common substrates used in the electronic industry.

Key Properties:

- Fast cure at room temperature
- Good dielectric properties
- Resistant to moisture and dust contamination
- Withstands weak acids & alkalis
- Good adhesion to many substrates
- Temperature resistance from –55°C up to 200°C
- Contains UV trace pigment for inspection
- Good edge coverage
- Low volatiles

Curing

Following exposure to atmospheric moisture the product will start to cure to a durable silicone elastomer. Full cure will depend on the relative humidity and ambient temperature. At 25°C and 55% Relative Humidity a 3mm section will normally cure in less than 24 hours.
Full bond strength and physical properties will be achieved after 5 days. Cure time depends on the thickness of coating applied and shape of the surface exposed to the atmosphere.

Storage and stability

Products 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. Products should be used prior to the expiring date marked on the label.

Handling precautions

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

PRODUCT SPECIFICATIONS

Property	Conditions	Method	Value	Units
Appearance	23°C	Visual	Translucent flowable liquid free from visible impurities	---
Hardness	23°C	ASTM D 2240-95	> 25	Shore A

TYPICAL PRODUCT CHARACTERISTICS

Property		Value
Viscosity [mPas]		3100
Spec. gravity [g/cm^3]		1,04
Tack Free Time [min]		10*
Cure Time [hours]	3mm thickness	24*
Shelf Life		12 months

* measured at 23°C and 55% relative humidity

TYPICAL MECHANICAL PROPERTIES OF THE CURED PRODUCT

Test	Value
Tensile Strength [MPa]	1.50
Elongation at Break [%]	140
Spec. Gravity [g/cm^3]	1.04

TYPICAL THERMAL PROPERTIES OF THE CURED PRODUCT

Test	Value
Thermal Conductivity [W/mK]	0.20
UL 94 Classification (internal)	HB

TYPICAL DIELECTRIC PROPERTIES OF THE CURED PRODUCT

Test (23°C)	Value
Dielectric Constant 60 Hz	2.9
Dielectric Dissipation 60 Hz	0.001
Volume Resistivity [Ω • cm]	2 x 10^{15}
Dielectric Strength [KV/mm]	>18

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.