

EN Technical Data Sheet

Bectron[®]

SG 75L2-30 / SG 79L5-30

1:1

Electronic Silicone Gel

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Area of application

Bectron® SG 75L2-30 cross-linked with Bectron® SG 79L5-30 is specifically designed for protection of electronic components against mechanical stress and vibration when high thermal conductivity is needed. Possibility of accelerated cure at high temperature allows use in mass production manufacturing lines.

Processing methods

Pre-treatment: parts and components to be potted should be clean, dry and free from grease. Compatibility between Bectron® SG 75L2-30 system and all materials to be in contact with should be checked prior to use.

All vessels, pipes and equipment used must be thoroughly cleaned because the Pt catalyst of this system may be easily poisoned by traces of sulphur compounds, amines or tin salts. This would seriously inhibit the cross-linking reaction.

Mixing: Bectron® SG 75L2-30 and cross-linker Bectron® SG 79L5-30 should be mixed at the ratio specified and stirred thoroughly immediately prior to processing. During stirring some air may be introduced in the system. Evacuation under vacuum may be needed to obtain a bubble free gel.

To obtain a softer and tacky gel a mixing ratio of 1.5:1 up to 2:1 can be used.

Application: Working time is about 2 hours; viscosity will start to build up after mixing.

It is recommended to prepare only the quantity of product that can be applied in this timeframe.

Cure will be completed at room temperature in about 48 hours.

Recommended curing conditions:

- 48 hours at Room Temperature
- 2 hours at 80°C

For applications where dimensional precision is important it is recommended to cure at room temperature.

Description

Bectron® SG 75L2-30 when mixed with Bectron® SG 79L5-30 will cure at room temperature to form a transparent gel in about 48 hours. Cure can be accelerated with heat.

Elasticity and dielectric properties of the final gel remain largely stable in a wide range of temperatures, between -50°C and +180°C.

A 1:1 mixing ratio allows easy and safe processing of the system.

Key Properties:

- Addition cure system
- Curing at room temperature
- Long working time
- Cure can be accelerated with heat
- Long term thermal resistance
- Elasticity
- Low Hardness
- Classified UL 94 V0

Storage and stability

Products should be stored in their original sealed containers 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.

SYSTEM SPECIFICATIONS

Property	Conditions	Method	Bectron® SG 75L2-30	Bectron® SG 79L5-30	Units
Viscosity	25°C	DIN 53019	11000 ÷ 14500	7500 ÷ 9000	mPas
Specific gravity	20°C	EN/DIN/ISO 2811-1	1.73 ÷ 1.83	1.69 ÷ 1.79	g/ml
Penetration	1h at 120°C	M 77	20 ÷ 40		mm*10

TYPICAL SYSTEM CHARACTERISTICS

Property	Bectron® SG 75L2-30	Bectron® SG 79L5-30
Colour	Beige	Blue
Shelf Life	12 months	12 months

TYPICAL CHARACTERISTICS OF THE MIX

Mixing Ratio (parts by weight)	1:1
Viscosity of mixture @ 25°C [mPas]	10500
Working Time at Room Temperature [min]	120

TYPICAL MECHANICAL PROPERTIES OF THE CURED PRODUCT

Test	Value
Specific Gravity @ 20°C [g/cm ³]	1.76
Hardness [Shore A]	< 2 (gel)
Penetration [mm/10]	30
Water Absorption [mg] 24h at RT	23

TYPICAL THERMAL PROPERTIES OF THE CURED PRODUCT

Test	Value
Thermal Conductivity [W/m.K]	0.90
UL 94 classification	V0

TYPICAL DIELECTRIC PROPERTIES OF THE CURED PRODUCT

Test	Value
Dielectric Strength [KV/mm]	11.0
Dielectric Constant 50Hz, 1000Hz, 10000Hz at RT (DIN 53483)	3.9
Volume Resistivity [$\Omega \cdot \text{cm}$]	9.9×10^{14}
Volume Resistivity [$\Omega \cdot \text{cm}$] after 7days in water immersion	4.6×10^{14}

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