

EN

Technical Data Sheet

Bectron®

SK 76V2-75/SH 79V5-75

100:2

Electronic Silicone - 2 Part - Condensation cure
Silicone Potting Compound

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Product description

The condensation cross-linking reaction of Bectron® SK 76V2-75 and Bectron® SH 79V5-75 will not suffer inhibition as addition cure systems. Elasticity and dielectric properties of the final rubber remain largely stable in a wide range of temperatures, between -40°C and +180°C.

Key Properties

- Condensation cure system
- Curing at room temperature
- Good thermal conductivity
- Long term thermal resistance
- Elasticity
- UL 94 V1 File: E140720

Areas of application

Bectron® SK 76V2-75 system is successfully used for casting coil heads and other components subject to thermal shock. Additionally, Bectron® SK 76V2-75 is generally suited as a protection for electronic components and circuits such as high-performance semi-conductors and high load resistors

Processing methods

Pre-treatment: surfaces of components to be treated should be clean, dry and free from grease.

Mixing: Thoroughly mix Bectron® SK 76V2-75 before use, as filler separation may occur upon prolonged storage. Weigh 100 parts of Bectron® SK 76V2-75 and 2 parts of Bectron® SH 79V5-75 in a clean container. Mix together until the curing agent is completely dispersed in the base. Hand or mechanical mixing can be used. During stirring some air can be incorporated and it is recommended to leave the mix to rest for about five minutes before use in order to allow evacuation of the air bubbles.

Application: Working time is about <40 minutes and viscosity will start to build up quickly after mixing. It is recommended to prepare only the quantity of product that can be applied in this timeframe.

Curing/Post-curing

The cross-linking reaction is a condensation and it will not suffer inhibition as addition cure systems.

Recommended curing conditions:

- Cure will be completed at room temperature in about 6 hours.
- Curing product should not be exposed to thermal stress before cure is completed.

Storage and stability

Bectron® SK 75V1-19 represents a two-component silicone rubber. Shelf-life of the material in pails is 12 months if stored between 5°C bis 30°C. Store accordingly to any specific instruction listed on the product label. Product must be used prior to the expiry date shown on the label.

Handling precautions

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

Sales specifications

SK 76V2-75

Properties	Conditions	Test Method	Value	M/U
Viscosity	25 °C	DIN 53019 (Internal Test V18/b/c)	6500 ÷ 8500	mPa·s
Density	20 °C	ISO 2811-2 (Internal Test S11)	1,51 ÷ 1,61	g/cm³

SH 79V5-75

Properties	Conditions	Test Method	Value	M/U
Density	23 °C	ISO 2811-1 (Internal Test S12)	0,99 ÷ 1,05	g/cm³

Typical properties of the hardener

Properties	Conditions	Test Method	Value	M/U
Colour		--	Blue transparent	
Viscosity	25 °C	DIN 53019 (Internal Test V18/b/c)	15 ÷ 21	mPa·s
Shelf life	5°C to 30°C	Internal Test	12	months

Typical properties of the resin

Properties	Conditions	Test Method	Value	M/U
Colour		--	Beige	
Shelf life	5°C to 30 °C	Internal Test	12	months

Typical properties of the liquid mix

Properties	Conditions	Test Method	Value	M/U
Mix ratio by weight		--	100:2	
Viscosity	25 °C	DIN 53019 (Internal Test V18/b/c)	7500	mPa·s
Time to get solid	23 °C - 102 g	Internal Test H22	< 40	min
Processing time	25 °C - 200 g	Internal Test	approx. 40	min

Typical thermal properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Linear expansions coefficient	From -80 to +220 °C	TMA (Internal Test M56)	200	ppm/K
Thermal conductivity		DIN 52613 (Internal Test M98a)	0,42	W/(m·K)

Typical dielectric properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Dielectric constant at 50 Hz	23 °C	IEC 60250 (Internal Test M3b)	3,2	
Dielectric Dissipation at 50 Hz	23 °C	IEC 60464-2 (Internal Test M3b)	< 0,02	
Comparative tracking index (CTI)	23 °C	IEC 60112 (Internal Test M26)	> 600	V

Typical mechanical properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Tensile Strength	23 °C	ISO 37 (Internal Test 29)	3,9	N/mm²
Hardness Shore A/1	23 °C	ISO 868 (Internal Test M30b)	70 ÷ 80	Shore A
Density	20 °C	ISO 2811-2 (Internal Test M27)	1,51 ÷ 1,61	g/cm³
Young Modulus	23 °C	ISO 37 (Internal Test 29)	3,44	MPa
Elongation at break	23 °C	ISO 37 (Internal Test 29)	126	%

Typical chemical properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Water Absorption	24 h / 23 °C	DIN EN ISO 62 (Internal Test M09a/b)	< 0,01	%
	0,5 h / 100 °C		< 0,01	%

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