EN

Preliminary Technical Data Sheet

Bectron®

SA 70P9-50

UL 94 V-0 listed

Electronic Silicone Adhesive - 1 Part - Neutral cure
High performance Silicon Adhesive

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Description

This is a 1-part condensation cure products (Alkoxy), thixotropic, non-corrosive when in contact with sensitive electronic parts and substrates. It also provides very good dielectric properties and has excellent adhesion to most common substrates used in the electronic industry. It is an ideal option for many electronic and lighting applications where high performance is a must.

Key properties:

- Neutral cure
- Good dielectric properties
- Thixotropic
- Good adhesion to many substrates
- Temperature resistance from -55°C up to 160°C
- Classified UL 94V0 (File E140720)

Areas of application

Assembly and Insulation of electronical and electrical parts and equipment, sealing and bonding of corrosion sensitive devices.

Processing methods

Pre-treatment: Parts to be sealed should be clean dry and free from grease. Contains visible particles and is suitable for dispensing from the cartridge. This product can be applied manually or using automatic dosing systems.

Curing/Post-curing

Following exposure to atmospheric moisture the product will start to cure to a durable silicone elastomer. Skin formation is depending of temperature and should be <80% humidity . At room temperature and 50% humidity the Skin formation will need about 15min. At 25°C and 55% relative humidity a 3 mm 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 the adhesive applied and shape of the surface exposed to the atmosphere. It is recommended that a minimum thickness of 1 mm is achieved between parts to obtain best adhesion to substrates.

Storage and stability

Product should be stored in its original sealed container to avoid any potential contamination at a temperature between 5°C to 30 °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

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

Sales specifications

Properties	Conditions	Test Method	Value	M/U
Appearance		Visual method	Black thixotropic paste	
Density	23 °C	ISO 2811-1 (Internal Test S12)	1,12 ÷ 1,16	g/cm³

Typical product characteristics

Properties	Conditions	Test Method	Value	M/U
Colour		--	Black	
Cure Time	3 mm mm - 23 °C - 55 %	--	< 24	hrs
Tack Free Time	23 °C - 55 %	Internal Test H22	< 10	min
Shelf life	5°C to 30°C	Internal Test	12	months
Viscosity	23 °C	Visual (Internal Test A01)	Thixothropic paste	

Typical mechanical properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Tensile Strength	23 °C	ISO 37 (Internal Test 29)	3,3 ÷ 3,9	N/mm²
Hardness Shore A/1	23 °C	ISO 868 (Internal Test M30b)	48 ÷ 52	Shore A
Tear resistance	23 °C	DIN 53504,5307&53515 (Internal Test M76)	19,4 ÷ 25	kN/m
Elongation at break	23 °C	ISO 37 (Internal Test 29)	300 ÷ 360	%

Typical thermal properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Flammability	3 and 5 mm	IEC 60707/IEC 60695-11-10 (Internal Test M25c)	V - 0	
Linear expansions coefficient	From -30 to 160 °C	TMA (Internal Test M56)	288	ppm/K

Typical dielectric properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Volume resistivity	23 °C - Initial value	IEC 60464 -2 (Internal Test M5)	$2 \times 10^{16} \div 2 \times 10^{16}$	Ω·cm
	23 °C - After 7d water immersion		7×10^{15}	Ω·cm
Dielectric Strength	23 °C	IEC 60455-2 (Internal Test M31)	11 ÷ 16	kV/mm
Comparative tracking index (CTI)	Test solution B	IEC 60112 (Internal Test M26)	> 600	V
Dielectric constant at 100 kHz	25 °C	IEC 60250 (Internal Test M3b)	4,6	
	178 °C		4,4	
Dielectric Dissipation at 100 kHz	25 °C	IEC 60464-2 (Internal Test M3b)	< 0,01	
	178 °C		> 0,01	

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