

Fujipoly Data Sheet

SARCON® SPG-NS series

Form in Place Gap Filler Type

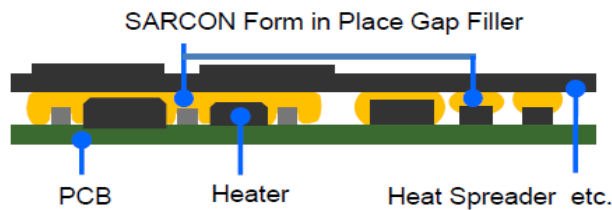
FEATURES

Highly Thermally Conductive and Electrically Insulative Silicone free Compound.

SARCON® Form in Place Gap Filler Type is highly conformable and highly thermal conductive type silicone free compound with very low compression force. It provides a thermal solution for the recent trends of higher frequencies and integration in the development of electronic devices. SARCON® Form in Place Gap Filler Type is suitable for filling delicate gaps and still provide superior thermal transfer.

CONSTRUCTIONS

Series	Characteristics	Packaging Options
SARCON® SPG-25B-NS	High Heat Transferring and low viscosity Thermal Conductivity ; 2.5W/m-K by using Hot Disk	<ul style="list-style-type: none"> • Syringe : 30cc • Cartridge : 325cc • Custom Packaging : Available on Request



RECOMMENDED APPLICATION

- Suitable for filling delicate gaps and still provide superior thermal transfer.
- Highly conformable with very low compression forces.
- Has excellent vibration absorption capabilities.
- Maintains thermal properties across a wide temperature range.
- Can be used to "Form-In-Place" and will remain form stable.
- Requires no heat curing.
- Will not cause corrosion on any metal surface.
- Silicone free.

THERMAL RESISTANCE

Unit : K-cm²/W (K-in²/W)

Gap	SPG-25B-NS
0.5mm / 0.02in	2.1 (0.33)
1.0mm / 0.04in	4.2 (0.65)

Test method: Measured by using ASTM D5470 modified, refer to Fujipoly Test method FATM P-3031.

TYPICAL PROPERTIES

Properties		unit	SPG-25B-NS	Test method	
Physical Properties	Color	-	White	Visual	
	Specific Gravity	-	2.5	ASTM D792	
	Viscosity	Pa-s	6000	Brookfield	
Electrical	Volume Resistivity	Ohm-m	2x10 ¹³	ASTM D257	
	Dielectric Constant	-	50Hz	8.31	ASTM D150
			1 KHz	8.42	
			1 MHz	8.33	
	Dissipation Factor	-	50Hz	0.000195	ASTM D150
1 KHz			0.00518		
Thermal Properties	Thermal Conductivity	W/m-K	2.5	Hot Disk, ISO 22007-2	
	Recommended Operating Temp.	°C	-40 to +120	-	
		°F	-40 to +248		

a) Viscosity: Measured by Brookfield Viscometer @ 5rpm

b) Thermal Conductivity: Measured by Hot Disk Test method according to ISO 22007-2.

COMPRESSION FORCE

Unit : N/6.4cm² (psi)

1.0mm Gap	SPG-25B-NS
0.9mm / 0.35in	144 (32.6)
0.8mm / 0.32in	214 (48.5)
0.7mm / 0.28in	266 (60.3)
0.6mm / 0.24in	323 (73.3)
0.5mm / 0.20in	391 (88.5)
Sustain	11 (2.6)
0.5mm Gap	SPG-25B-NS
0.45mm / 0.18in	55 (12.4)
0.40mm / 0.16in	71 (16.2)
0.35mm / 0.14in	92 (20.8)
0.30mm / 0.12in	120 (27.3)
0.25mm / 0.10in	164 (37.2)
Sustain	4 (1.0)

Test method: Measured by ASTM D575-91 for reference

- Specimen Area; DIA.28.6mm (1.13in) • Platens Area; DIA. 28.6mm (1.13in) • Sustain: Sustain at 0.5mm/0.25mm for 1 minute
- Compression Velocity; 5.0mm/minute • Setting Gap : 0.5mm or 1.0mm (Initial Gap)
- The specimen is pressed till setting a gap, and then waiting for the load to settle down.

DURABILITY

Thermal Resistance

Unit : K-cm²/W (K-in²/W)

Series	Gap	Initial	+70°C	+120°C	-40°C	+85°C/85%RH	-40°C⇄+120°C
			After 1,000hrs	After 1,000hrs	After 1,000hrs	After 1,000hrs	/30min each After 1,000hrs
SPG-25B-NS	0.5mm / 0.02in	2.0 (0.31)	2.0 (0.31)	2.0 (0.31)	2.0 (0.31)	2.0 (0.31)	1.8 (0.28)

Thermal Conductivity ; Measured by using ASTM D5470 modified, refer to Fujipoly Test method FATM P-3031.

(Specimen is sandwiched between aluminum blocks.)

NOTES

Properties of the products may be revised due to some changes for improving performance. Properties values in this document are not specification or guaranteed. The product is designed, developed, and manufactured for general industrial use only. Never use for medical, surgical, and/or related purposes. Never use for the purpose of implantation and/or other purposes by which a part of or whole product remains in human body. Contents described in the document do not guarantee the performances and qualities required for the purchaser's specific purposes. The purchaser is responsible for pre-testing the product under the purchaser's specific conditions and for verifying the expected performances. Statements concerning possible or suggested uses made herein may not be relied upon, or be constructed, as guaranteeing no patent infringement.