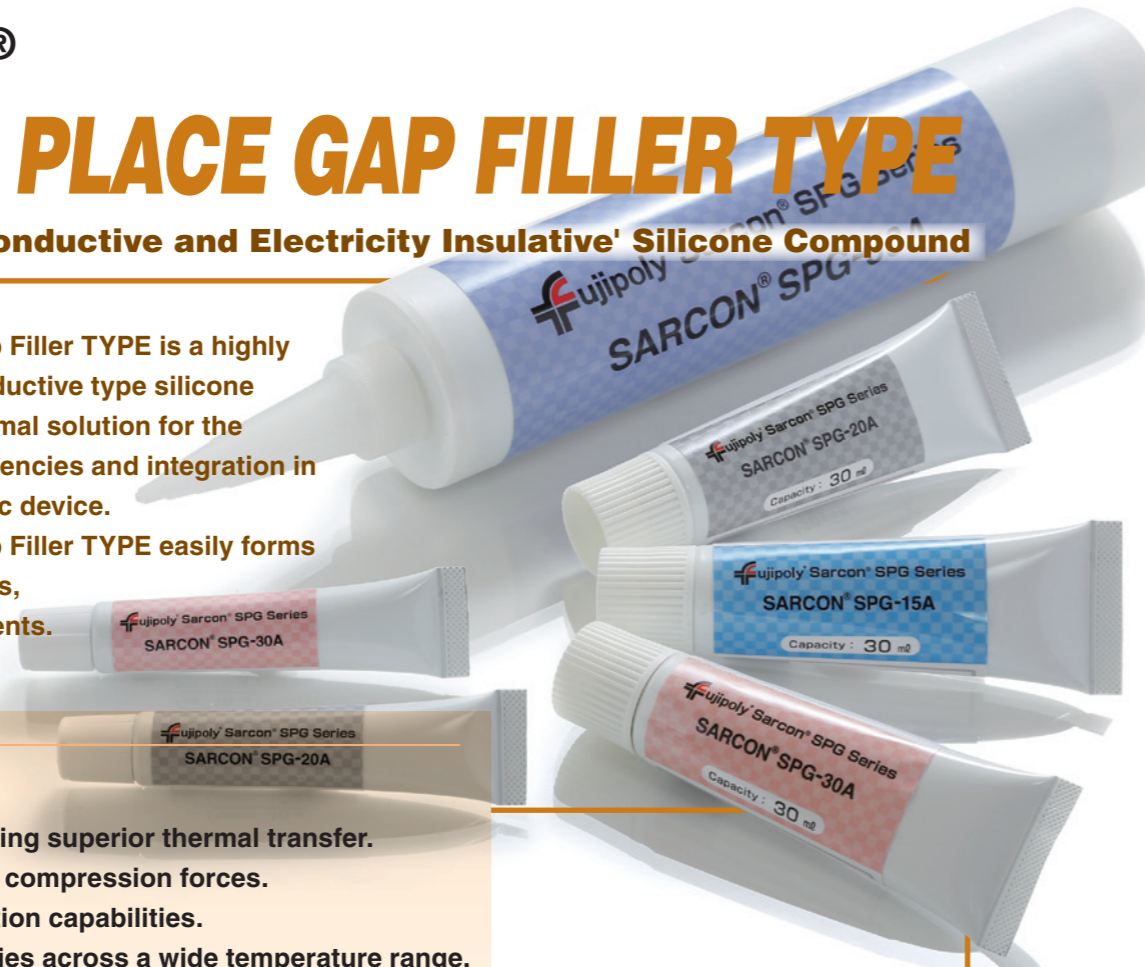


## FORM IN PLACE GAP FILLER TYPE

Highly Thermally Conductive and Electricity Insulative Silicone Compound

SARCON® Form in Place Gap Filler TYPE is a highly conformable / thermally conductive type silicone compound. It provides a thermal solution for the recent trends of higher frequencies and integration in the development of electronic device.

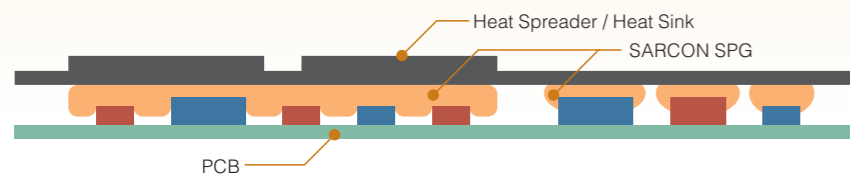
SARCON® Form in Place Gap Filler TYPE easily forms and adheres to most surfaces, shapes, and size of components.



### Features

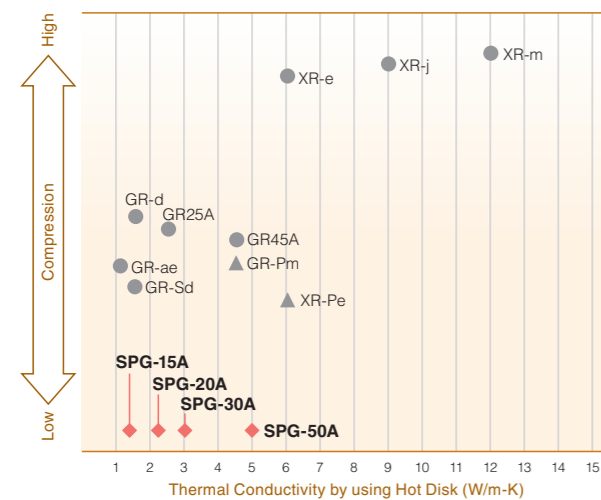
- Fill large gaps while providing superior thermal transfer.
- Conformable with very low compression forces.
- Excellent vibration absorption capabilities.
- Maintains all initial properties across a wide temperature range.
- Used to "Form-in-Place" and remain form stable.
- Requires no heat curing.
- Will not cause corrosion on any metal surface.

### Recommended Application



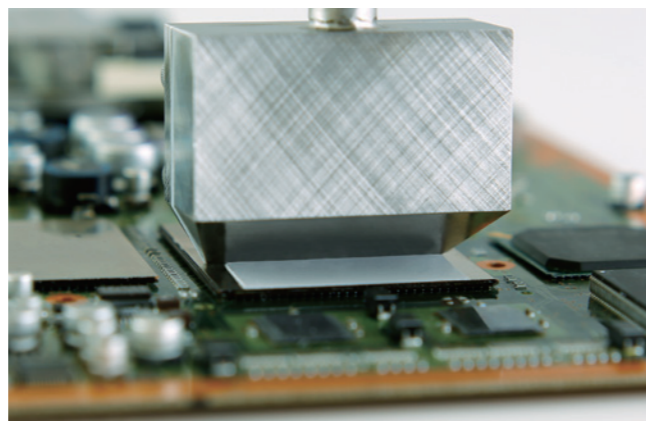
- SARCON Form in Place Gap Filler TYPE is superior to filling gaps as well as dissipating heat.  
- Excellent workability / handling with its softness but no dripping and no pumping.

### Compression Load Correlation of Fujipoly TIM Pad Products



### Packaging Options

- Pre-filled syringe : 30cc
- Cartridge : 325cc
- Custom packaging : Available on request



### Typical Product Properties

Test Properties	Unit	SPG-15A	SPG-20A	SPG-30A	SPG-50A	Test Method	
<b>Physical Properties</b>	Specific Gravity	-	2.8	2.9	3.2	3.2	ASTM D 792
	Color	-	Light Blue	Light Gray	Apricot	Light Sky Blue	Visual
	Viscosity	Pa-s	1,500	600	3,500	5,000	ASTM D1824 -1.0(1/s)
			3,500	-	16,000	20,000	ASTM D1824 -0.1(1/s)
	Flow Rate	g/min	22.1	29.7	12.3	18.3	Fujipoly Original
TGA Weight Loss	wt%	0.27	0.03	0.03	0.06	Fujipoly Original	
<b>Thermal Properties</b>	Thermal Conductivity	W/m-k	1.5	2.0	3.2	5.0	Hot Disk : ISO/CD 22007-2
	Recommended Operating Temp.	°C	-40 to +150	-40 to +150	-40 to +150	-40 to +150	-
°F		-40 to +302	-40 to +302	-40 to +302	-40 to +302	-	

a) Viscosity: Measured by Accurate Rotary Viscometer (RV1) , Shearing Speed = 1 (1/S).  
b) Flow Rate: Measured by 2.2mm(0.09") orifice at 0.62MPa (90psi).  
c) TGA Weight Loss at 150°C(302°F) x24hrs , amount of sample: 2cm³ (0.12in³).  
d) Thermal Conductivity : Measured by Hot Disk Test method according to ISO / CD22007-2. → See P.31

### Thermal Resistance and Reliability

unit : K-cm²/W (K-in²/W)

Initial

Gap	SPG-15A	SPG-20A	SPG-30A	SPG-50A
0.5mm (0.02in)	2.5	2.1	1.1	0.9
	(0.39)	(0.33)	(0.17)	(0.14)
1.0mm (0.04in)	5.3	-	2.3	1.7
	(0.82)	-	(0.36)	(0.26)

After 1,000 hours

Test Condition	Gap	SPG-15A	SPG-20A	SPG-30A	SPG-50A
+150°C	0.5mm (0.02in)	2.5	2.1	1.4	1.2
		(0.39)	(0.33)	(0.22)	(0.19)
	1.0mm (0.04in)	5.3	-	2.5	1.8
		(0.82)	-	(0.39)	(0.28)
-40°C	0.5mm (0.02in)	2.7	2.2	1.3	1.1
		(0.42)	(0.34)	(0.20)	(0.17)
	1.0mm (0.04in)	5.3	-	2.4	1.8
		(0.82)	-	(0.37)	(0.28)
+60°C /95%RH	0.5mm (0.02in)	2.5	2.2	1.1	0.9
		(0.39)	(0.34)	(0.17)	(0.14)
	1.0mm (0.04in)	5.3	-	2.3	1.7
		(0.82)	-	(0.36)	(0.26)
-40°C ↔ +125°C /30min each	0.5mm (0.02in)	2.5	2.6	1.1	0.9
		(0.39)	(0.40)	(0.17)	(0.14)
	1.0mm (0.04in)	5.6	-	2.7	1.7
		(0.87)	-	(0.42)	(0.26)

e) specimen:

	SPG-15A	SPG-20A	SPG-30A	SPG-50A
Area	3.14cm²	3.14cm²	3.14cm²	3.14cm²
	0.487in²	0.487in²	0.487in²	0.487in²
Weight	Gap:0.5mm (0.02in) 0.44g	0.46g	0.50g	0.50g
	Gap:1.0mm (0.04in) 0.88g	-	1.00g	1.00g

f) Measured by Guarded Heater Test method for reference. → See P.32

### Compression Force

unit : N/6.4cm²(psi)

Gap	SPG-15A	SPG-20A	SPG-30A	SPG-50A
0.45mm (0.18in)	84	30	196	80
	(19.49)	(6.96)	(45.47)	(18.56)
0.40mm (0.16in)	99	39	209	89
	(22.97)	(9.05)	(48.49)	(20.65)
0.35mm (0.14in)	116	48	228	100
	(26.91)	(11.14)	(52.90)	(23.20)
0.30mm (0.12in)	145	66	271	119
	(33.64)	(15.31)	(62.87)	(27.61)
0.25mm (0.10in)	175	85	320	141
	(40.60)	(19.72)	(74.24)	(32.71)
Sustain	2	0	17	6
	(0.46)	(0.00)	(3.94)	(1.39)

Gap	SPG-15A	SPG-20A	SPG-30A	SPG-50A
0.9mm (0.35in)	21	7	47	34
	(4.87)	(1.62)	(10.90)	(7.89)
0.8mm (0.32in)	27	9	56	38
	(6.26)	(2.09)	(12.99)	(8.82)
0.7mm (0.28in)	35	12	68	45
	(8.12)	(2.78)	(15.78)	(10.44)
0.6mm (0.24in)	45	16	88	54
	(10.44)	(3.71)	(20.42)	(12.53)
0.5mm (0.20in)	63	24	118	69
	(14.62)	(5.57)	(27.38)	(16.01)
Sustain	0	0	7	16
	(0.00)	(0.00)	(1.62)	(3.71)

g) Sustain: Sustain 50% at 1 minute later.  
h) Measured by ASTM D575-91(2012) for reference. → See P.34