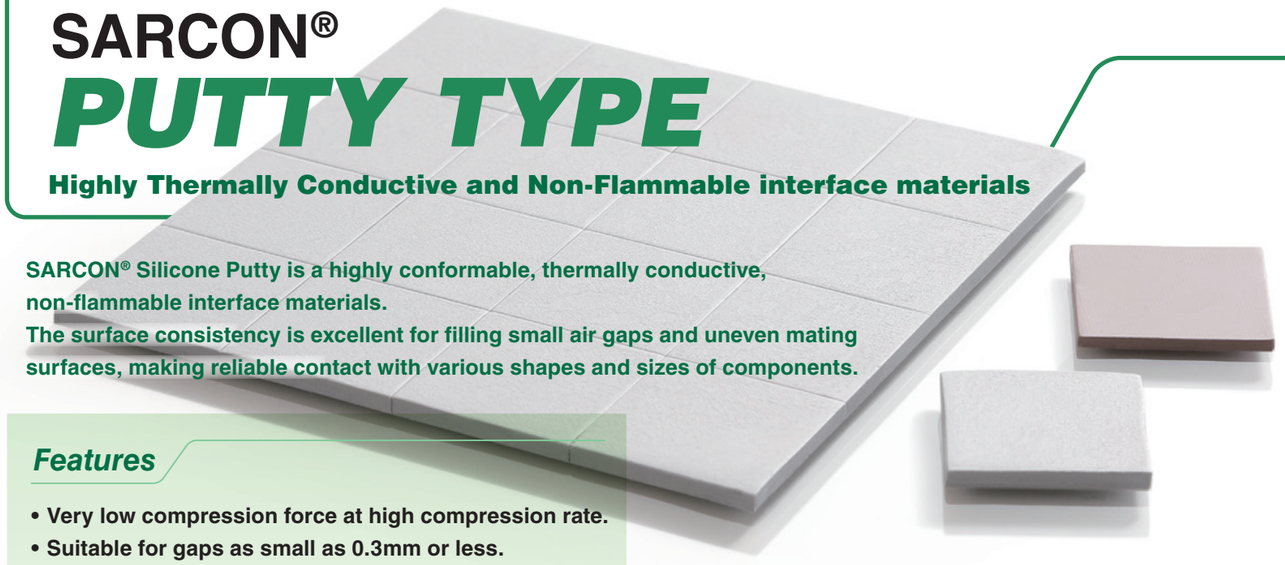
SARCON®
PUTTY TYPE

Highly Thermally Conductive and Non-Flammable interface materials

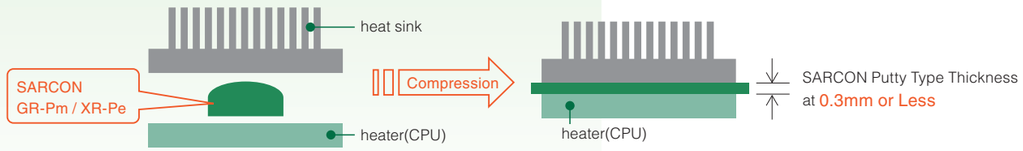


SARCON® Silicone Putty is a highly conformable, thermally conductive, non-flammable interface materials.
The surface consistency is excellent for filling small air gaps and uneven mating surfaces, making reliable contact with various shapes and sizes of components.

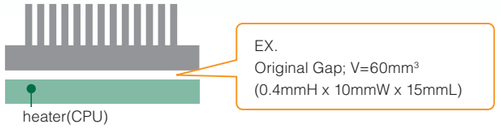
Features

- **Very low compression force at high compression rate.**
- **Suitable for gaps as small as 0.3mm or less.**
- **UL94 V-0 certified.**
- **Available in two formulations.**

Recommended Application



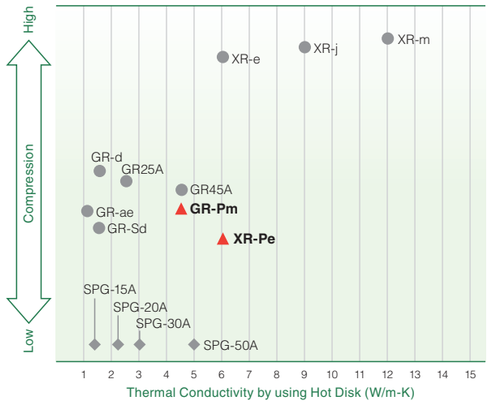
What id the optimum size of GR-Pm or XR-Pe to fill Original Gap?

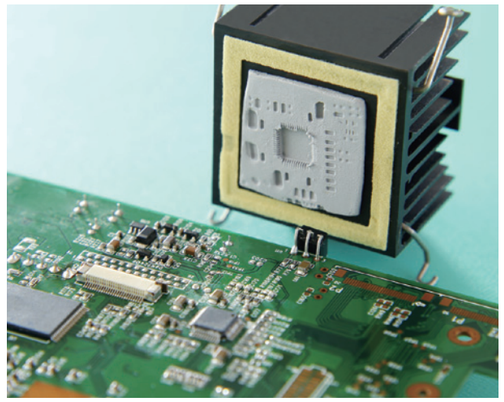


Decide Thickness of SARCON
dependent end on the compression force
e.g. Thickness = 2mm

Calculate Width and Length of SARCON
60mm³V ÷ 2mmT = 30mm²
→ X:Y=10mmW, Y=15mmL
→ X=4.47mm , Y=6.71mm
use ; 200GPm 5 x 7 or 200XPe 5 x 7

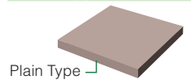
Compression Load Correlation of Fujipoly TIM Pad Products





Construction

1) **Plain Type**



Typical Product Properties

Test Properties		Unit	GR-Pm	XR-Pe	Test Method
Physical Properties	Construction	(See diagram above)	1)	1)	-
	Thickness*	mm	1.5 , 2.0 , 2.5	1.5 , 2.0	ASTM D 734
	Specific Gravity	–	3.2	3.4	ASTM D 792
	Color	–	Dark Reddish Gray	Light Gray	Visual
Electrical Properties	Volume Resistivity	Ohm-m	$1x10^{12}$	$1x10^{10}$	ASTM D 257
	Breakdown Voltage	kV/mm	18	11	ASTM D 149
	Dielectric Strength	kV/mm	13	–	ASTM D 149
	Dielectric Constant	50Hz	7.37	8.58	ASTM D 150
		1kHz	7.31	8.33	
		1MHz	7.34	7.77	
	Dissipation Factor	50Hz	0.0101	0.0245	ASTM D 150
		1kHz	0.00218	0.0172	
		1MHz	0.000747	0.0114	
Thermal Properties	Thermal Conductivity unit : W/m-K	Guarded Heater	–	11	ASTM D 5470
		Hot Wire	6	–	ASTM D 2326
		Hot Disk	4.5	6	ISO/CD 22007-2
	Recommended Operating Temp.	˚C	-40 to +150	-40 to +150	–
		˚F	-40 to +302	-40 to +302	
	Flame Retardant	–	V-0	V-0	UL94

a) Thermal Conductivity : Measured by Guarded Heater method for reference. →See P.32
: Measured by Hot Wire method for reference. →See P.31
: Measured by Hot Disk Test method according to ISO/CD 22007-2. →See P.31

* Some details of thickness. →See P.28

Thermal Resistance

unit : K-cm²/W (K-in²/W)

Pressure	GR-Pm		XR-Pe	
	150G-Pm	200G-Pm	150X-Pe	200X-Pe
100kPa	3.24	4.37	2.11	2.29
(14.5psi)	(0.50)	(0.68)	(0.33)	(0.35)
300kPa	2.61	3.33	0.90	0.98
(43.5psi)	(0.40)	(0.52)	(0.14)	(0.15)
500kPa	2.21	2.78	0.50	0.55
(72.5psi)	(0.34)	(0.43)	(0.08)	(0.09)

b) Test method: Fujipoly Test method, FTM-P3050 by TIM 1300 Tester which is ASTM D 5470 equivalent. →See P.32

Compression Force

unit : N/6.4cm²(psi)

Compression Ratio	GR-Pm		XR-Pe	
	150G-Pm	200G-Pm	150X-Pe	200X-Pe
10%	53	52	37	37
	(12.01)	(11.78)	(8.38)	(8.38)
20%	153	144	130	108
	(34.66)	(32.63)	(29.45)	(24.47)
30%	265	231	221	165
	(60.04)	(52.34)	(50.07)	(37.38)
40%	375	314	294	206
	(84.96)	(71.14)	(66.61)	(46.67)
50%	492	408	354	246
	(111.47)	(92.44)	(80.20)	(55.73)
Sustain	144	118	86	52
	(32.63)	(26.73)	(19.48)	(11.78)

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