

Fujipoly Data Sheet

# SARCON EGR30A


## EM Noise Suppression Type

### FEATURES

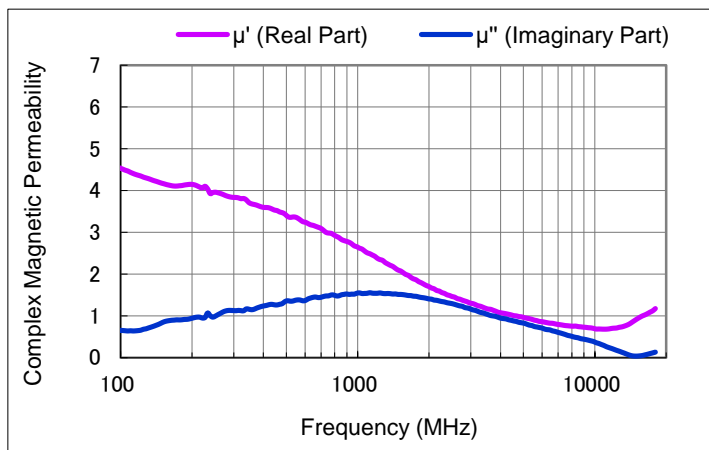
Silicone Gap Filler Pad for Suppression of Electromagnetic Wave

- Effective to absorb and damp a wide range of electromagnetic waves and also effective as a high performance thermal interface material.
- Easily filling small gaps of IC chip surface with soft gel texture.
- Good workability to simply insert the product between circuit board and casing.
- Self-adhesive gel surface does not require any adhesive tape for assembly.

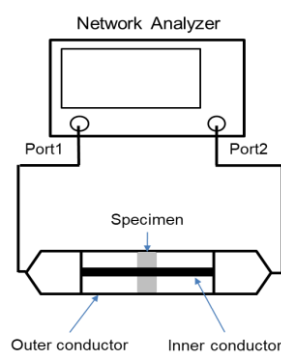
### CONSTRUCTIONS

Series	Characteristics	Constructions
SARCON EGR30A-0H	Thermal Conductivity of EGR30A material is 3.0W/m-K by using Hot Disk.	

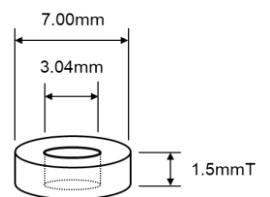
### COMPLEX MAGNETIC PERMEABILITY



【Illustration of Equipment】



【Specimen Size】



**TYPICAL PROPERTIES**

Properties		unit	EGR30A		Test method	Specimen
Physical Properties	Color	-	Dark Gray		Visual	-
	Specific Gravity	-	3.6		ASTM D 792	A
	Hardness	Shore OO	45		ASTM D2240	B
Electrical Properties	Volume Resistivity	Ohm-m	2.4x10 <sup>9</sup> ※1		ASTM D 257	C
	Dielectric Constant	-	100MHz	28.30	RF - IV method	A
			500MHz	31.60		
			1GHz	39.10		
	Dissipation Factor	-	100MHz	0.003	RF - IV method	A
500MHz			0.044			
1GHz			0.267			
Thermal Properties	Thermal Conductivity	W/m-K	3.0 by Hot Disk		ISO 22007-2	-
	Useful Temperature	°C (°F)	-40 to +120 (-40 to +248)		-	-
	Low molecular Siloxane	wt%	D <sub>3</sub> ~ D <sub>10</sub>	0.0010	Gas Chromatography	-
			D <sub>11</sub> ~ D <sub>20</sub>	0.0010		
Flame Retardant	-	V-0		UL 94	-	

• Specimen A : 1mmT • Specimen B : 50mmW x 100mmL x 10mmT • Specimen C : 120mmW x 120mmL x 1mmT

※1 : Applied Voltage 100V

**THERMAL RESISTANCE****EGR30A-0H**Unit : K-cm<sup>2</sup>/W (K-in<sup>2</sup>/W)

Compression Force	0.5mmT	1.0mmT	1.5mmT	2.0mmT	2.5mmT
100kPa /14.5psi	1.65 (0.26)	2.67 (0.41)	3.52 (0.55)	4.65 (0.72)	5.70 (0.88)
300kPa /43.5psi	1.36 (0.21)	2.22 (0.34)	2.92 (0.45)	3.77 (0.58)	4.49 (0.70)
500kPa /72.5psi	1.24 (0.19)	1.98 (0.31)	2.48 (0.38)	3.08 (0.48)	3.66 (0.57)

Test method : Fujipoly Test method, FTM-P3050 by TIM Tester 1300 which is ASTM D5470 equivalent

• Specimen Area : DIA.33.0mm (1.30in)

**COMPRESSION FORCE****EGR30A-0H**Unit : N/6.4cm<sup>2</sup> (psi)

Compression Rate	0.5mmT	1.0mmT	1.5mmT	2.0mmT	2.5mmT
10%	165 (37.4)	150 (34.0)	147 (33.3)	87 (19.7)	58 (13.1)
20%	442 (100.1)	364 (82.5)	256 (58.0)	179 (40.6)	121 (27.4)
30%	687 (155.6)	524 (118.7)	416 (94.3)	330 (74.8)	221 (50.1)
40%	889 (201.4)	742 (168.1)	640 (145.0)	532 (120.5)	367 (83.1)
50%	1087 (246.3)	1006 (227.9)	911 (206.4)	771 (174.7)	547 (123.9)
Sustain 50%	752 (170.4)	693 (157.0)	428 (97.0)	317 (71.8)	193 (43.7)

Test method : Measured by ASTM D575-91 for reference

• Specimen Area : DIA.28.6mm (1.13in) • Platen Area : DIA. 28.6mm (1.13in) • Sustain 50% : Sustain 50% at 1 minute later

• Compression Velocity : 5.0mm/minute

**DURABILITY**

Test Property	Unit	70°C		150°C	
		Initial	After 1,000hrs	Initial	After 1,000hrs
Specific Gravity	-	3.6	3.6	3.6	3.6
Hardness	Shore OO	45	60	45	88
Volume Resistivity	Ohm-m	2.4x10 <sup>9</sup>	9.4x10 <sup>9</sup>	2.4x10 <sup>9</sup>	3.4x10 <sup>11</sup>
Thermal Conductivity	W/m-K	3.1	3.2	3.1	3.3

Test Property	Unit	-40°C		60°C/95%RH	
		Initial	After 1,000hrs	Initial	After 1,000hrs
Specific Gravity	-	3.6	3.6	3.6	3.6
Hardness	Shore OO	45	46	45	60
Volume Resistivity	Ohm-m	2.4x10 <sup>9</sup>	2.4x10 <sup>9</sup>	2.4x10 <sup>9</sup>	1.9x10 <sup>9</sup>
Thermal Conductivity	W/m-K	3.1	3.1	3.1	3.1

Test Property	Unit	-40°C(30min) ⇄ +125°C(30min)	
		Initial	After 1,000hrs
Specific Gravity	-	3.6	3.6
Hardness	Shore OO	45	81
Volume Resistivity	Ohm-m	2.4x10 <sup>9</sup>	3.6x10 <sup>10</sup>
Thermal Conductivity	W/m-K	3.1	3.1

Specimen : EGR30A-0H Test methods of Thermal Conductivity base on Fujipoly Test Method, FTM P-1612 by Hot Disk.

**TYPES AND CONFIGURATION**

Series	Product Name	Thickness	Sheet Size
SARCON EGR30A	EGR30A-0H-50GY	0.5mm ± 0.15mm	300mm x 200mm (Recommended Usable Size: 290mmx190mm)
	EGR30A-0H-100GY	1.0mm ± 0.2mm	
	EGR30A-0H-150GY	1.5mm ± 0.2mm	
	EGR30A-0H-200GY	2.0mm ± 0.2mm	
	EGR30A-0H-250GY	2.5mm ± 0.3mm	

**HANDLING NOTES**

- It is recommended to use the material in up to 30% of compression ratio. Using the material beyond the recommended compression rate may result in excessive silicone oil exudation.
- It is recommended to compress the material with the equal ratio on the whole surface. Partial excessive stress may also result in excessive silicone oil exudation.

**WARRANTY STATEMENT**

- Fujipoly has been utilizing Hot Disk method and TIM Tester method since Fujipoly defined them as Fujipoly standard.
- Properties of the products may be revised due to some changes for improving performance.
- Properties values in this document are not specification or guaranteed.
- This product is made of silicone, and silicone oil may exude from the product.
- This product is made of silicone, and low molecular siloxane may vaporize depending on operating conditions.
- The product is designed, developed, and manufactured for general industrial use only. Never use for medical, surgical, and/or relating purposes. Never use for the purpose of implantation and/or other purposes by which a part of or whole product remains in human body.
- Before using, a safety must be evaluated and verified by the purchaser.
- 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 a guaranty of no patent infringement.
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