

FUJIPOLY[®]

SARCON[®] HR/GHR Series.

Sarcon HR : High Heat conductivity Extrusions and Moldings.

Sarcon GHR : High Heat conductivity Glass cloth Reinforcement.

FUJIPOLY[®] and SARCON[®], are registered Trademarks of Fujipoly Group

FUJIPOLY DATA SHEET NUMBER FPDS 96-09 / Version 4

Fuji Polymer Industries Co.,Ltd. (Overseas office)

JAPAN

3F Kanda YKBldg 3-9, Iwamoto-cho 1-chome, Chiyoda-ku Tokyo Japan, 101-0032

[Phone] +81-3-5821-3105 [Facsimile] +81-3-5821-3108

[e mail] fujipoly@mxd.mesh.ne.jp

ISO9002

Fujipoly America Corporation.

USA

900 Milik Street P.O. Box 119 Carteret, NJ 07008-0119

[Phone] +1-732-969-0100 [Facsimile] +1-732-969-3311

[e mail] info@fujipoly.com [web site] www.fujipoly.com

QS9000

Fujipoly Europe Ltd.

ENGLAND

Avant Business Centre, Unit 17, Third Avenue, Bletchley Milton Keynes, MK1 1DR England

[Phone] +44-1908-277800 [Facsimile] +44-1908-379916

[e mail] fujipoly@btconnect.com

Fujipoly Singapore PTE Ltd.

SINGAPORE

Blk 71 Ayer Rajah Crescent #04-03/06 Singapore 139951

[Phone] +65-773-3466 [Facsimile] +65-773-2234

[e mail] fujipoly@mbox5.singnet.com.sg

ISO9002

Fujipoly (Thailand) Co.,Ltd.

THAILAND

55/8 Moo 13 Navanakorn Industrial Estate Phase 4 Phaholyothin Road.

Klong Nueng, Klong Luang, Pathumthane 12120, Thailand

[Phone] +66-2-529-2732 [Facsimile] +66-2-529-2223

[e mail] fujipoly@cscoms.com

ISO9002

Fujipoly-Apcom Ltd.

HONG KONG

Workshop (F&J), Block 1, 4/F, Kwai Tak Industrial Centre Kwai Tak Street, Kwai Chung, N.t., Hong Kong.

[Phone] +852-2428-3770 [Facsimile] +852-2489-9637

[e mail] fujipoly@netvigator.com

Fujipoly China Ltd., China Factory

CHINA

1/F., JiaLongDa Bldg., Changlang Road, Jinmei Estate, Changping, Dongguan, GuangDong China 523579

[Phone] +86-769-3989660 [Facsimile] +86-769-3989662

[e mail] chinafujipoly-00@sohu.com

FUJIPOLY[®] DATA SHEET FPDS 96-08 (Version 4)

1] Product Name :

- 1] -1) Sarcon[®] HR (UL File Number E58126)
- 2) Sarcon[®] GHR (UL File Number E58126)
- 3) Sarcon[®] GHR-AD (Silicone Pressure Sensitive Adhesive option)

2] Features for Sarcon HR / Sarcon GHR / Sarcon GHR-AD

1) High Heat Conductivity.

SARCON[®] HR is Fujipoly's originally developed High Heat Conductive Silicone Rubber. Fine, high heat conductive ceramic particles are mixed with insulative silicone rubber to produce this excellent insulative, high heat conductive silicone material.

SARCON[®] GHR is a composite of Heat Conductive Silicone Rubber and Fiberglass. SARCON[®] GHR has excellent mechanical and physical characteristics.

2) Usable Over a Wide Temperature Range. (−60°C ~ 182°C / −76°F ~ +360°F)

Due to its superior resistance to heat and cold, SARCON[®] is ideal for use across a wide temperature range. Sarcon[®] maintains its outstanding electrical and electrical insulating properties which are characteristic of silicone. There is no significant variation in its physical properties.

SARCON[®] is distinguished by a wide range of other outstanding properties, such as excellent resistance to environmental conditions, arc, corona discharge, ozone and chemicals.

3) Simplified Processing and Reduced Operating Costs.

Unlike mica, SARCON[®] requires no grease. This significantly simplifies operation, and dispenses with the various costs required for applying the grease. Sarcon[®] is not messy, easy to apply and free from the problems of contamination due to grease application.

4) Cushion Effect.

Due to SARCON's elastic properties, it has an excellent cushion effect. Attached to devices like transistors. SARCON[®] provides superb protection against damage due to deformation as well as shock and vibration.

5) Complies with UL Standards. (UL 94. UL 746)

- A. Complies with UL 746 (Electrical Insulant Standard) 150°C
- B. Complies with UL 94 (Flame Retardancy Standard) V-0

6) Adhesive option.

Sarcon[®] GHR is available with a PSA (Pressure Sensitive Adhesive) mounting option. Temperature range performance is −46°C to +150°C. Simply remove the protective liner and press into position to attach.

3] Typical Product Properties of SARCON® HR / SARCON GHR.

3] -1) SARCON® HR®

Table - 1

Item	Unit	SARCON 30H	SARCON 45H	SARCON 85H
Color	—	Brown		
Thickness	mm	0.3+0.1/-0	0.45 ±0.05	0.85 ±0.05
Hardness	ASTM D2240(A)	85		
Tensile Strength	KN/m	1.7	2.3	4.2
Elongation	%	60		
Tear Strength	KN/m	0.2B	0.3B	0.6B
Volume Resistivity	MΩ·m	x 10 ⁷	x 10 ⁷	x 10 ⁷
Breakdown Voltage	KV/AC	9	10	14
Withstand Voltage	KV/minute	6	7	10
Dielectric Constant	50Hz	4.9	4.6	5.4
	10 ³ Hz	4.9	4.5	5.7
	10 ⁶ Hz	4.8	4.5	5.4
Dielectric Dissipation Factor	50Hz	0.008	0.007	0.004
	10 ³ Hz	0.004	0.004	0.002
	10 ⁶ Hz	0.003	0.003	0.002
Thermal Impedance	FTM P-3010	0.42 °C/W	0.52 °C/W	0.76 °C/W
Flame Retardant	UL-94	V-0	V-0	V-0

Note.) 1. Test method is based on JIS K-6301, JIS K-6249.

2. Breakdown Voltage : AC 60Hz

Withstand Voltage : AC 60Hz

3. Thermal Impedance : Fujipoly Test Method FTM P-3010 which gives ASTM D5470 Equivalent value.

4. Flame Retardant : UL-94

3] -2) SARCON® GHR

Table - 2

Item	Unit	SARCON 15GHR	SARCON 20GHR	SARCON 30GHR
Color	—	Brown		
Thickness	mm	0.15+0.02/-0.04	0.20+0.02/-0.04	0.30+0.06/-0
Hardness	ASTM D2240(A)	92	92	95
Tensile Strength	KN/m	8		
Elongation	%	2 or less		
Volume Resistivity	MΩ/m	10 ⁷	10 ⁷	10 ⁷
Breakdown Voltage	KV/AC	3	6	9
Withstand Voltage	KV/minute	2	4	8
Dielectric Constant	50Hz	3.0	3.3	3.9
	10 ³ Hz	3.0	3.3	3.9
	10 ⁶ Hz	3.0	3.3	3.9
Dielectric Dissipation Factor	50Hz	0.015	0.009	0.006
	10 ³ Hz	0.005	0.003	0.003
	10 ⁶ Hz	0.003	0.004	0.004
Thermal Impedance	FTM P-3010	0.55 °C/W	0.57 °C/W	0.61 °C/W
Thermal Impedance AD Type	FTM P-3010	0.63 °C/W	0.66 °C/W	0.72 °C/W
Flame Retardant	UL-94	V-0	V-0	V-0

Note.) 1. Test method is based on JIS K-6249.

2. Breakdown Voltage : AC 60Hz

Withstand Voltage : AC 60Hz

3. Thermal Impedance : Fujipoly Test Method FTM P-3010 which gives ASTM D5470 Equivalent value.

4. Flame Retardant : UL-94

5. Tensile Strength / Elongation : Test methods according to ASTM D1458, double silicone rubber / Glass cloth test method.

4] Heat Aging Test

4] -1) Test Condition : 150°C (300°F) x 1,000hrs(42days)

SARCON® 30H

Table - 3

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	93	91	92	94
Tensile Strength	KN/m	2.0	1.9	1.9	1.4
Elongation	%	60	40	30	25
Volume Resistivity	MΩ/m	9.0 x 10 ⁷	1.3 x 10 ⁷	4.6 x 10 ⁷	1.0 x 10 ⁷
Breakdown Voltage	KV/AC	9.0	8.0	7.8	7.0
Dielectric Constant	50Hz	4.9	4.6	4.6	4.6
	10 ³ Hz	4.9	4.6	4.6	4.5
	10 ⁶ Hz	4.8	4.6	4.6	4.6
Dielectric Dissipation Factor	50Hz	0.008	0.006	0.003	0.004
	10 ³ Hz	0.004	0.003	0.002	0.002
	10 ⁶ Hz	0.003	0.004	0.003	0.003

SARCON® 45H

Table - 4

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	JIS(A)	93	93	95	95
Tensile Strength	KN/m	3.1	2.8	2.9	2.8
Elongation	%	50	40	30	30
Volume Resistivity	MΩ/m	9.0 x 10 ⁷	4.3 x 10 ⁷	6.6 x 10 ⁷	4.7 x 10 ⁷
Breakdown Voltage	KV/AC	10.0	8.5	8.3	8.1
Dielectric Constant	50Hz	4.6	4.8	4.5	4.6
	10 ³ Hz	4.5	4.7	4.5	4.6
	10 ⁶ Hz	4.5	4.7	4.5	4.6
Dielectric Dissipation Factor	50Hz	0.007	0.005	0.004	0.004
	10 ³ Hz	0.004	0.003	0.003	0.003
	10 ⁶ Hz	0.003	0.004	0.004	0.004

SARCON® 85H

Table - 5

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	JIS(A)	93	93	94	94
Tensile Strength	KN/m	5.4	5.1	5.0	4.8
Elongation	%	50	50	30	30
Volume Resistivity	MΩ/m	1.0 x 10 ⁷	1.0 x 10 ⁷	7.0 x 10 ⁷	7.7 x 10 ⁷
Breakdown Voltage	KV/AC	14.0	12.5	11.7	11.5
Dielectric Constant	50Hz	5.4	5.4	5.5	5.5
	10 ³ Hz	5.4	5.4	5.5	5.5
	10 ⁶ Hz	5.4	5.4	5.5	5.5
Dielectric Dissipation Factor	50Hz	0.004	0.003	0.003	0.003
	10 ³ Hz	0.002	0.002	0.002	0.002
	10 ⁶ Hz	0.002	0.003	0.003	0.003

4] -2) Test Condition : 200°C (390°F) x 1,000hrs (42days)

SARCON® 30H

Table - 6

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	93	96	98	98
Tensile Strength	KN/m	2.0	1.8	1.9	2.0
Elongation	%	60	55	40	25
Volume Resistivity	MΩ/m	9.0 x 10 ⁷	1.1 x 10 ⁷	4.4 x 10 ⁷	9.4 x 10 ⁷
Breakdown Voltage	KV/AC	9.0	7.6	7.6	7.0
Dielectric Constant	50Hz	4.9	4.8	4.7	4.6
	10 ³ Hz	4.9	4.8	4.7	4.6
	10 ⁶ Hz	4.8	4.8	4.7	4.6
Dielectric Dissipation Factor	50Hz	0.008	0.005	0.005	0.005
	10 ³ Hz	0.004	0.003	0.003	0.003
	10 ⁶ Hz	0.003	0.003	0.003	0.003

SARCON® 45H

Table - 7

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	93	95	99	99
Tensile Strength	KN/m	3.1	3.0	3.0	3.1
Elongation	%	50	45	35	25
Volume Resistivity	MΩ/m	9.0 x 10 ⁷	9.3 x 10 ⁷	6.5 x 10 ⁷	5.6 x 10 ⁷
Breakdown Voltage	KV/AC	10.0	8.3	7.6	6.0
Dielectric Constant	50Hz	4.6	4.6	4.4	4.3
	10 ³ Hz	4.5	4.6	4.4	4.3
	10 ⁶ Hz	4.5	4.6	4.4	4.3
Dielectric Dissipation Factor	50Hz	0.007	0.005	0.004	0.004
	10 ³ Hz	0.004	0.003	0.003	0.003
	10 ⁶ Hz	0.003	0.003	0.003	0.003

SARCON® 85H

Table - 8

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	93	93	94	95
Tensile Strength	KN/m	5.0	4.6	4.0	5.0
Elongation	%	50	50	25	25
Volume Resistivity	MΩ/m	1.0 x 10 ⁷	1.2 x 10 ⁷	6.5 x 10 ⁷	7.6 x 10 ⁷
Breakdown Voltage	KV/AC	14.0	12.3	12.1	12.4
Dielectric Constant	50Hz	5.4	5.4	5.5	5.5
	10 ³ Hz	5.4	5.4	5.5	5.4
	10 ⁶ Hz	5.4	5.4	5.5	5.4
Dielectric Dissipation Factor	50Hz	0.004	0.003	0.002	0.002
	10 ³ Hz	0.002	0.002	0.002	0.002
	10 ⁶ Hz	0.002	0.002	0.003	0.002

4] -3) Test Condition : 150°C (300°F) x 1,000hrs (42days)

SARCON® 15GHR

Table - 9

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	92	92	93	92
Tensile Strength (ASTM D1458)	KN/m	8.0	8.8	9.2	7.8
Elongation (ASTM D1458)	%	2 or less	2 or less	2 or less	2 or less
Volume Resistivity	MΩ·m	1.1 x 10 ⁷	7.8 x 10 ⁷	6.5 x 10 ⁷	1.8 x 10 ⁸
Breakdown Voltage	KV/AC	3.0	3.5	3.0	3.0
Dielectric Constant	50Hz	3.0	3.3	2.6	2.5
	10 ³ Hz	3.0	3.3	2.6	2.5
	10 ⁶ Hz	3.0	3.3	2.6	2.5
Dielectric Dissipation Factor	50Hz	0.015	0.004	0.005	0.004
	10 ³ Hz	0.005	0.002	0.002	0.002
	10 ⁶ Hz	0.003	0.003	0.003	0.003

SARCON® 20GHR

Table - 10

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	92	92	92	93
Tensile Strength (ASTM D1458)	KN/m	8.5	8.5	8.8	9.6
Elongation (ASTM D1458)	%	2 or less	2 or less	2 or less	2 or less
Volume Resistivity	MΩ·m	1.3 x 10 ⁷	6.8 x 10 ⁷	1.3 x 10 ⁸	7.3 x 10 ⁷
Breakdown Voltage	KV/AC	5.5	5.4	5.3	5.0
Dielectric Constant	50Hz	3.3	3.2	2.7	2.9
	10 ³ Hz	3.3	3.2	2.6	2.9
	10 ⁶ Hz	3.3	3.2	2.6	2.9
Dielectric Dissipation Factor	50Hz	0.009	0.004	0.003	0.004
	10 ³ Hz	0.003	0.002	0.002	0.002
	10 ⁶ Hz	0.004	0.003	0.004	0.003

SARCON® 30GHR

Table - 11

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	95	93	94	96
Tensile Strength (ASTM D1458)	KN/m	8.6	8.6	8.8	9.5
Elongation (ASTM D1458)	%	2 or less	2 or less	2 or less	2 or less
Volume Resistivity	MΩ·m	3.3 x 10 ⁷	7.8 x 10 ⁷	9.1 x 10 ⁷	3.9 x 10 ⁷
Breakdown Voltage	KV/AC	7.0	7.3	7.3	7.0
Dielectric Constant	50Hz	3.9	3.8	3.4	3.1
	10 ³ Hz	3.9	3.8	3.4	3.1
	10 ⁶ Hz	3.9	3.8	3.4	3.1
Dielectric Dissipation Factor	50Hz	0.006	0.004	0.003	0.004
	10 ³ Hz	0.003	0.002	0.002	0.002
	10 ⁶ Hz	0.004	0.003	0.004	0.004

4] -4) Test Condition : 200°C (390°F) x 1,000hrs (42days)

SARCON® 15GHR

Table - 12

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	92	93	93	94
Tensile Strength (ASTM D1458)	KN/m	8.0	6.5	7.0	5.9
Elongation (ASTM D1458)	%	2 or less	2 or less	2 or less	2 or less
Volume Resistivity	MΩ·m	1.1 x 10 ⁷	2.6 x 10 ⁸	1.8 x 10 ⁸	1.8 x 10 ⁸
Breakdown Voltage	KV/AC	3.0	3.5	3.0	2.5
Dielectric Constant	50Hz	3.0	2.5	2.1	2.4
	10 ³ Hz	3.0	2.5	2.1	2.4
	10 ⁶ Hz	3.0	2.5	2.2	2.4
Dielectric Dissipation Factor	50Hz	0.015	0.001	0.001	0.002
	10 ³ Hz	0.005	0.001	0.001	0.001
	10 ⁶ Hz	0.003	0.003	0.002	0.003

SARCON® 20GHR

Table - 13

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	92	92	92	92
Tensile Strength (ASTM D1458)	KN/m	8.5	9.3	7.9	8.5
Elongation (ASTM D1458)	%	2 or less	2 or less	2 or less	2 or less
Volume Resistivity	MΩ·m	1.3 x 10 ⁷	1.2 x 10 ⁸	1.1 x 10 ⁸	1.8 x 10 ⁸
Breakdown Voltage	KV/AC	5.5	5.0	4.7	4.0
Dielectric Constant	50Hz	3.3	3.1	2.6	2.9
	10 ³ Hz	3.3	3.1	2.7	2.9
	10 ⁶ Hz	3.3	3.1	2.6	2.9
Dielectric Dissipation Factor	50Hz	0.009	0.002	0.001	0.002
	10 ³ Hz	0.003	0.002	0.001	0.001
	10 ⁶ Hz	0.004	0.003	0.002	0.003

SARCON® 30GHR

Table - 14

Properties	Unit	Before test	After 100hrs	After 500hrs	After 1,000hrs
Hardness	ASTM D2240(A)	95	96	95	96
Tensile Strength (ASTM D1458)	KN/m	8.6	8.6	8.2	7.2
Elongation (ASTM D1458)	%	2 or less	2 or less	2 or less	2 or less
Volume Resistivity	MΩ·m	3.3 x 10 ⁷	3.9 x 10 ⁷	1.0 x 10 ⁸	1.0 x 10 ⁸
Breakdown Voltage	KV/AC	7.0	6.0	6.1	5.7
Dielectric Constant	50Hz	3.9	3.8	3.2	3.5
	10 ³ Hz	3.9	3.7	3.2	3.5
	10 ⁶ Hz	3.9	3.8	3.2	3.5
Dielectric Dissipation Factor	50Hz	0.006	0.002	0.002	0.002
	10 ³ Hz	0.003	0.001	0.001	0.001
	10 ⁶ Hz	0.004	0.003	0.003	0.003

5] Water resistance.

5] -1) Test Condition : 60 (140°F) x 500hrs (20days)

SARCON® 30H

Table - 15

Properties	Unit	Before test	After 250hrs	After 500hrs
Hardness	ASTM D2240(A)	90	86	86
Volume Resistivity	MΩ·m	2.8 x 10 ⁷	3.6 x 10 ⁵	2.4 x 10 ⁵
Breakdown Voltage	KV/AC	9.0	3.5	4.0
Dielectric Constant	50Hz	4.9	5.3	5.6
	10 ³ Hz	4.9	5.2	5.4
	10 ⁶ Hz	4.8	5.1	5.2
Dielectric Dissipation Factor	50Hz	0.008	0.021	0.029
	10 ³ Hz	0.004	0.013	0.017
	10 ⁶ Hz	0.003	0.006	0.008

SARCON® 45H

Table - 16

Properties	Unit	Before test	After 250hrs	After 500hrs
Hardness	ASTM D2240(A)	93	90	89
Volume Resistivity	MΩ·m	1.8 x 10 ⁷	6.6 x 10 ⁵	2.4 x 10 ⁵
Breakdown Voltage	KV/AC	10.5	6.0	5.0
Dielectric Constant	50Hz	4.6	5.3	5.5
	10 ³ Hz	4.5	5.1	5.3
	10 ⁶ Hz	4.5	5.1	5.1
Dielectric Dissipation Factor	50Hz	0.007	0.016	0.024
	10 ³ Hz	0.004	0.009	0.014
	10 ⁶ Hz	0.003	0.006	0.007

SARCON® 85H

Table - 17

Properties	Unit	Before test	After 250hrs	After 500hrs
Hardness	ASTM D2240(A)	93	86	86
Volume Resistivity	MΩ·m	1.0 x 10 ⁷	5.3 x 10 ⁵	2.6 x 10 ⁵
Breakdown Voltage	KV/AC	14.0	7.0	6.0
Dielectric Constant	50Hz	5.4	6.1	6.4
	10 ³ Hz	5.4	5.9	6.2
	10 ⁶ Hz	5.4	5.8	6.0
Dielectric Dissipation Factor	50Hz	0.004	0.019	0.023
	10 ³ Hz	0.002	0.010	0.013
	10 ⁶ Hz	0.002	0.006	0.007

5] -2) Test Condition : 60°C (140°F) x 500hrs (20days)

SARCON® 15GHR

Table - 18

Properties	Unit	Before test	After 250hrs	After 500hrs
Hardness	ASTM D2240(A)	92	92	92
Volume Resistivity	MΩ·m	1.1 x 10 ⁷	7.5 x 10 ⁵	3.2 x 10 ⁴
Breakdown Voltage	KV/AC	3.0	2.5	2.5
Dielectric Constant	50Hz	3.0	—	3.5
	10 ³ Hz	3.0	—	3.3
	10 ⁶ Hz	3.0	—	3.3
Dielectric Dissipation Factor	50Hz	0.015	—	0.045
	10 ³ Hz	0.005	—	0.010
	10 ⁶ Hz	0.003	—	0.007

SARCON® 20GHR

Table - 19

Properties	Unit	Before test	After 250hrs	After 500hrs
Hardness	ASTM D2240(A)	92	92	92
Volume Resistivity	MΩ·m	1.3 x 10 ⁷	3.3 x 10 ³	2.0 x 10 ²
Breakdown Voltage	KV/AC	5.5	4.0	4.0
Dielectric Constant	50Hz	3.3	—	4.4
	10 ³ Hz	3.3	—	4.1
	10 ⁶ Hz	3.3	—	4.0
Dielectric Dissipation Factor	50Hz	0.009	—	0.061
	10 ³ Hz	0.003	—	0.026
	10 ⁶ Hz	0.004	—	0.014

SARCON® 30GHR

Table - 20

Properties	Unit	Before test	After 250hrs	After 500hrs
Hardness	ASTM D2240(A)	95	95	95
Volume Resistivity	MΩ·m	3.3 x 10 ⁷	2.4 x 10 ⁵	3.9 x 10 ³
Breakdown Voltage	KV/AC	7.0	7.0	7.0
Dielectric Constant	50Hz	3.9	—	5.0
	10 ³ Hz	3.9	—	4.7
	10 ⁶ Hz	3.9	—	4.5
Dielectric Dissipation Factor	50Hz	0.006	—	0.069
	10 ³ Hz	0.003	—	0.020
	10 ⁶ Hz	0.004	—	0.008

6] Clamping Torque VS Thermal Impedance (°C/W).**Table - 21**

Clamping Torque		3kg-cm	5kg-cm	7kg-cm
Product Name	Thickness (mm)			
30H	0.34	0.44	0.42	0.39
45H	0.46	0.54	0.52	0.51
85H	0.85	0.73	0.76	0.74
15GHR	0.14	0.58	0.55	0.53
20GHR	0.21	0.61	0.57	0.54
30GHR	0.33	0.67	0.61	0.59
15GHR - AD	0.18		0.63	
20GHR - AD	0.24		0.66	
30GHR - AD	0.38		0.72	

Note.) Test inethod : Fujipoly test method FTM P-3010 (ASTM D5470 Equivalent)

7] Chemical Resistance. (Chemical Name : HCFC AK-225 (Substitutive Freon))**Table - 22**

Product Name	Insulative Resistivity(KΩ·m)		Breakdown Voltage (KV)		Thermal Impedance (°C/W)	
	before soak	after 24hrs	before soak	after 24hrs	before soak	after 24hrs
30H	2.8 x 10 ⁶	3.0 x 10 ⁵	9	8	0.42	0.41
45H	1.8 x 10 ⁷	2.3 x 10 ⁷	10	10	0.52	0.53
85H	1.0 x 10 ⁷	6.0 x 10 ⁷	14	13	0.76	0.74
15GHR	1.6 x 10 ⁷	2.5 x 10 ⁷	3	2	0.55	0.56
20GHR	3.2 x 10 ⁷	1.2 x 10 ⁷	6	4.5	0.57	0.61
30GHR	2.5 x 10 ⁷	1.1 x 10 ⁷	9	8.3	0.61	0.62

8] Standard Products.

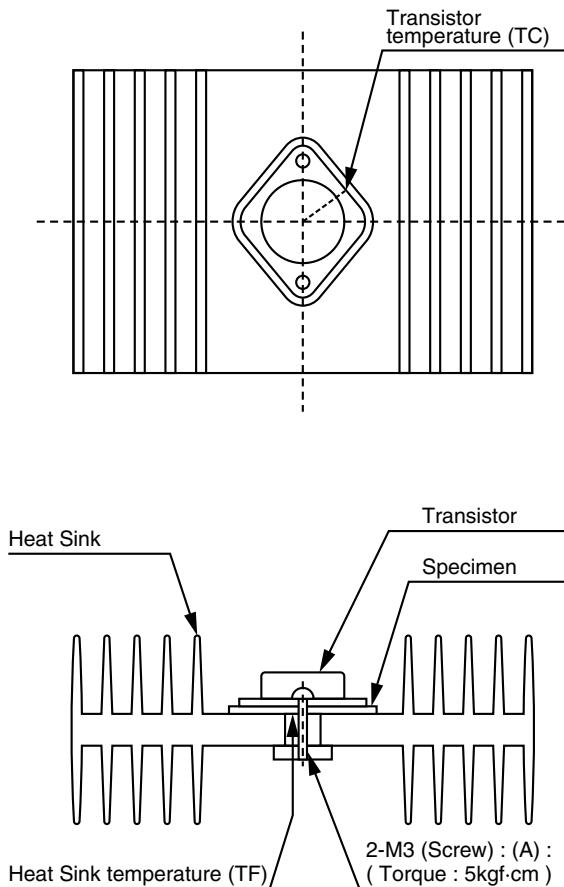
- Sacon® Roll and Sheets.
- Sacon® Die-cut Gaskets.
- Sacon® Sleeves.
- Sacon® Cases.

9] Test Method for Thermal Resistance (Impedance) .

Test method : Fujipoly test method FTM P-3010 which gives ASTM D5470 equivalent value.

- 1) Punched-out specimen in TO-3 package is located between a transistor and heat sink (Fig.1). and secured with screws the position (A), using a screwdriver.
- 2) DC 10V, 2A (20W) current is applied to the transistor.
- 3) After three minutes, the thermal resistance is calculated based on the following formula (B).

(Fig.1)



Test Apparatus

Transistor : 2SC2245

Heat Sink : 40CH104L-90-K
(manufactured by Ryosan Co., Ltd)

Heat Sensor : 2SC1-OHK300 x 532W x J002Y
(manufactured by Chino Co., Ltd)

Condition : 25°C 60%RH

Formula for Thermal Impedance calculation.

$$(B) : R_t = (T_c - T_f) / P_C$$

R_t : Thermal resistance (°C·inch² / W)

T_c : Transistor temperature °C

T_f : Heat sink temperature °C

P_C : Power applied to transistor

10] Other Technical Information and Design Guide.

Fuji Poly website <http://www.fujipoly.com>

: January 31th 2002 version 4
: October 31th 1999 version 3
: June 1st 1999 version 2
ISSUED : October 15th 1996 version 1

STATEMENT OF LIEU OF WARRANTY : All technical information and data in this document is based on tests and is believed to be accurate and reliable. Nevertheless, since the products described herein are not provided to conform with mutually accepted specifications and the use thereof is unknown, the manufacturer and seller of the product do not guarantee results, freedom from patent infringement, or suitability of the product for any application thereof. The manufacturer and seller of the product, described in this document will provide all possible technical assistance and will replace any products proven defective. No statement or recommendation made by the manufacturer or seller, not contained herein, shall have any force of effect unless in conformity with an agreement signed by an officer of the seller or manufacturer. Product testing by the purchaser is recommended in order to confirm expected results.

Copyright© 1996 Fujipoly.

*SARCON[®], is registered Trademark of Fujipoly.