Fujipoly®

Fujipoly New Product Technical Information

NEW PRODUCT : SARCON® XR-v / XR-v-Al

Highly Thermal Conductive and Non-Flammable Silicone Putty Sheets

1. Features:

Sarcon® XR-v is a highly thermal conductive putty type silicone sheet. Putty nature greatly contributes to reduction of contact resistance and consequently to lowest thermal resistance, and it is customer friendly material due to its easy applying by printing.

Sarcon® XR-v-Al has one surface with aluminum film, which enable to remove even after application (before operation) and there is no-pull-out effect.

1) Putty nature enables low contact thermal resistance
2) Low Molecular Siloxane content is very low
3) Has a flame retardancy of UL specification 94 V-0 equivalent

2. Variety of Sarcon® XR-v and XR-v-Al products:

Description	Construction	Application Guidelines
Sarcon® ##X-v (11X-v)	Silicone (Gel) compound	Thermal transfer from CPU and other heat-generating devices to heat sink
Sarcon® ##X-v-Al (11X-v-Al)	Silicone (Gel) compound with Aluminum film (10 μ mT)	

＊## refers to a thickness of sheet. (unit: 1/100mm)

3. Typical Product Properties:

3－1. Thermal properties, Electric property and Flame retardancy: (Typical Value)

Item		XR-v	XR-v-Al	Test Method
Thermal Conductivity (W/m·K)		6.6		Fujipoly test method: Hot Disk method tester (TPA-501) which is based on ASTM D2326 equivalent.
Thermal Resistance	Force	0.11mmT	0.11mmT	Fujipoly test method: FTM P-3020 which gives ASTM D5470 equivalent.
(℃·cm²/watt)	40kPa	0.13*1	0.32*1	
(℃·cm²/watt)	100kPa	0.13	0.38	Fujipoly Test Method: TIM1300 Tester based on ASTM D5470
	200kPa	0.09	0.24	
	300kPa	0.08	0.17	
Flame retardancy (UL94)		V-0	V-0 equivalent	UL94 standard
Volume Resistivity (MΩ-m)		$1x10^5$	($1x10^5$) *2	JIS K6249/ASTM D257

*1: Dimensions of specimen: $2.24cm^2$
*2: Silicone material only except for Aluminum film

3－2. Extractable Volatile: (Typical Value)

(Low Molecular Siloxane Content)

Dn	Sarcon® XR-v	Test Method
Total less D^{20}	Less than 0.10 wt%	Gas Chromatographic Analysis by Abstracting Carbon Tetrachloride

3－3. Durability (Reliability): (Typical Value)

Specimen: 11X-v (15x15)

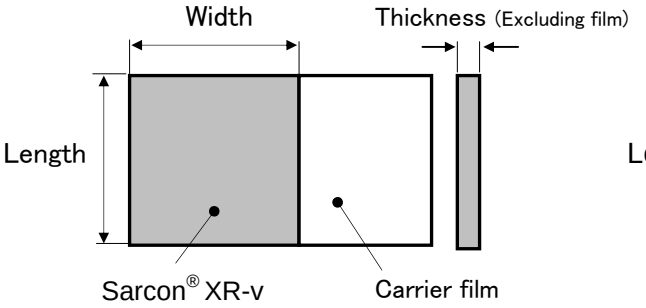
Test Conditions	Initial	250 hrs	500 hrs	1,000 hrs
+120℃ Aging	0.23	0.23	0.25	0.25
+150℃ Aging	0.23	0.23	0.23	0.23
+85℃ 85%RH Aging	0.23	0.21	0.20	0.20
-40℃⇔+125℃ Heat Shock	0.23	0.23	0.23	0.23

*Test Method for Thermal Resistance (℃·cm^2/watt): ASTM D 5470 equivalent

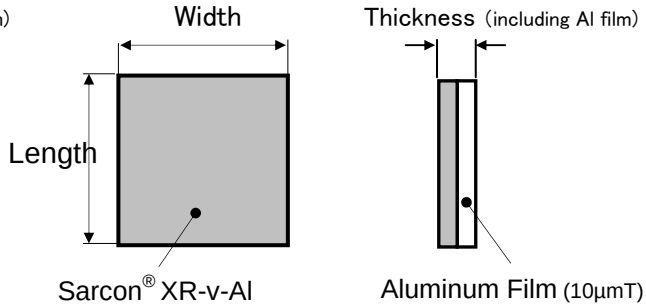
4. Measurement and Handling Method:

4－1. Composition

Sarcon® XR-v



Sarcon® XR-v-Al

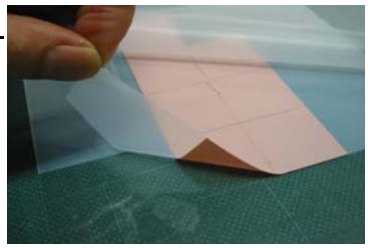


Item	Size		Tolerance
Width (mm)	10.0 ～ 50.0		±1.0
Length (mm)	10.0 ～ 50.0		±1.0
Thickness (mm)	11X-v	0.11	±0.03

Item	Size		Tolerance
Width (mm)	10.0 ～ 50.0		±1.0
Length (mm)	10.0 ～ 50.0		±1.0
Thickness (mm)	11X-v-Al	0.11	±0.03

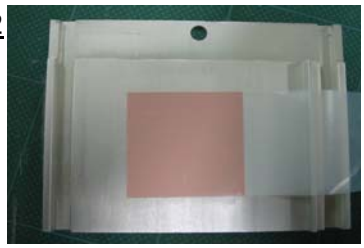
4－2. Sarcon® XR-v Handling Method

Step-1



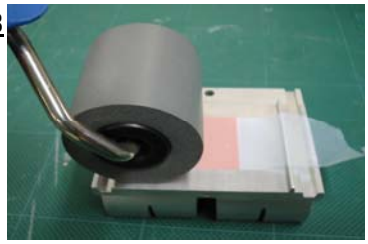
Peel the product with carrier film off from PET film

Step-2



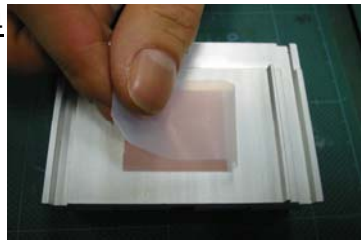
Apply onto heat sink

Step-3



Roll twice on the film to attach to heat sink

Step-4



Peel off instantly the PET film to 180°direction

5. Others:

Cautions;

・Specification and information stated on this paper may change without notice.

・Data listed in this paper is TYPICAL data and no GUARANTEED data.

Notes:

- All Fujipoly test data in this document are based on Fujipoly test method and are believe to be accurate and reliable. Nevertheless, any Fujipoly test data shows typical product properties, and does not show the guaranteed product properties.
- Some silicone oil may exude from the product according to operating conditions.
- Some low molecular siloxane may vaporize from the product according to operating conditions.
- It is advisable to use the product under recommended operating condition. Some more silicone oil may exude from the product if it was used over the recommended condition.
- It is advisable to use the product under parallel and even compression. Some more silicone oil may exude from the product if it was used under excessive or partial stress.
- Products testing by the purchaser is recommended in order to meet expected results such as performance and application.

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.