HRS Co., Ltd.
www.hrssilicone.com
www.hrssilicone.com.cn

Silicone Technology
HRS

SILICONE SHEET

HR-TSP is an advanced silicone rubber with high thermal conductivity and superior flame-retardant.
By combining the inherent silicone rubber properties of heat resistance, electrical insulation and long-term aging into one compound, this universally applicable material can be made in an unlimited number of thermal management configurations.

SPECIALIST IN **SILICONE RUBBER TECHNOLOGY**

We will make every effort to meet your service requirements by developing new technologies and products through continuous research and development.

CONTENTS

EVERYTHING FOR YOUR LIFE - HRS

HRS Co., Ltd. was established in 1981 and developed silicone rubber compounds for the first time in Korea. We have focused on silicone rubber business for a long time. Now we have a variety of products such as HCR, LSR, RTV, and TSP(thermal conductive silicone rubber).

We developed the technologies of silicone rubber compounding, siloxane polymer composition, and special functional polymer composition by ourselves. We have developed more than 200 grades of silicone rubber materials for the use of electricity and electronics, information and telecommunication, consumer electronics, automobile, machinery, medical tools and various backbone industries, and that have been sold in Korea and overseas countries. We are specialized in silicone rubbers and run environmental-friendly management as well as being certified ISO 14001.

Our annual production capacity is over 6,000tons from two factories in Pyeongtaek and Asan.

We are expanding our markets into Europe and North America as well as Asia and Middle East.

HISTORY

1978~1985

1978. 05 Established Hae Ryong Trading Company (Importing business of silicone rubber)
1981. 07 Incorporated as Hae Ryong (started developing the manufacturing technology of silicone rubber Compound)
1983. 10 Awarded for New Material development by the minister of the Ministry of commerce and industry
1985. 03 Changed the company name to Hae Ryong Silicone Co., Ltd. Moved to the new factory in Gimpo City
1985. 12 Acquired UL-94V0

1986~1990

1986. 08 Developed the technology for primary synthesis of silicone gum for the first time in the country through a collaborate research with korea Advanced institute of Science and technology (KAIST)
1987. 06 Developed the basic technology for silicone gum compounding
1990. 09 Made a contract with Bayer AG in Germany for technological affiliation and sales in Southeast Asia

1991 ~ 1995

1991. 07 Developed the technology to manufacture the silicone rubber for general purpose silicone rubber for general purpose molding. UL standard certification was acquired for that and the sales in domestic and foreign market of it was started. (for the first time in Korea)
1991. 10 Established sales agencies in Southeast Asia (8 Countries including Taiwan and Malaysia)
1993. 05 Supplied and installed Fire Stop Seal for the 3rd and 4th Yeonggwang nuclear power plant (the first localization in the country)
1993. 11 Developed the technology to manufacture the silicone RTV foam (the project to develop basic industrial technologies implemented in collaboration with National Industrial Technology Center)

1995 ~ 2000

1995. 11 Exported silicone rubber amounting more than $5,000,000 for the first time in the country (received the tower of 5 million dollar export as the prize) Awarded the medal of commendation from the governor of Gyeonggi-do for the merits of export (no.2222)
*The tower of 5 million US dollar export
1995. 12 Acquired the certification for EM mark (silicone RTV foam) - National Industrial Technology Center no. 95-61
1996. 10 Acquired ISO 9001 certification.

2000 ~ 2005

2000. 05 Listed in KOSDAQ
2002. 11 The company acquired the patent for the addition- cure type low hardness silicone rubber with excellent magnetoadherence.
2004. 08 The construction of Pyeongtaek factory was completed (production facility for silicone polymer, HCR and LSR)
2005. 06 The patent for shielding silicone rubber of self-adhesive electromagnetic waves was registerd.

2006 ~2011

2006. 08 Change of representative directors (collaborative representative directors; Kang,Seong-ja, Ji, Won-Yeong)
2007. 03 Hae Ryong Silicone Company Limited → HRS Company Limited
2007. 07 Form strategic alliance with Dow Corning Corporation for HCR business
2007. 10 Acquisition of co-patent with Comtech Chemicals Ltd for "Manufacture process of low hardness and low viscosity silicone foam"
2007. 11 Acquired ISO-14001
2008. 10 The construction of Asan factory was begun.
2008. 11 Exported silicone rubber amounting more than $10,000,000
* The tower of 10 million US dollar export
2010. 07 Supply Agreement between Hilti and HRS
2011. 05 SUZHOU HAERYONG SILICONE CO., LTD. was established in China

2012 ~2020

2012. 10 Acquired the patent for Silicon polymer composition for backlight unit buffer spacer material of LCD
2013. 10 Acquired the certification of Hyundai Rotem Supplier Quality (RSQ)
2014. 03 Selected as “The Proud SME Businessman of the Month”
06 Acquired FDA (Sildent-Dental impression materials)
11 Acquired the patent for Liquid silicone composition for back light unit lamp holder of Liquid crystal display
2016. 03 Appointed new CEO (CEO : Ms. Sung Ja Kang)
12 Acquired CFDA (Sildent-Dental impression materials)
2017. 03 Appointed new CEO (CEO : Mr. Jin Sung, Kim)
2018. 11 Acquired IATF 16949 2016
2020. 05 Acquired Main-Biz
Reselected as a global hidden champion

SEOUL OFFICE

· Main Businesses

-Trading Team
-Finance Team
-HR/IR Team
-Strategy & Planning Team

PYONGTAEK PLANT

· Main Businesses

-HCR Silicone Rubber
-LSR Silicone Rubber
-RTV(F/S) Silicone Rubber
-Silicone Gum/Polymer
-DM Dental Impression Materials
-EMULSION(Silicones for personal care)

ASAN PLANT

· Main Businesses

-Rubber Articles
-Silicone Sheet (S/S)

CHINA PLANT

· Main Businesses

-Rubber Articles
-Silicone Sheet (S/S)

OVERVIEW OF THE SILICONE RUBBER

Silicone rubber's special features such as "Organosiloxanes Polymer" has been originated from its unique molecular structure that they carry both inorganic and organic properties unlike other organic rubbers. In other words, due to the Si-O bond of Silicone Rubber and its inorganic properties, Silicone Rubber is superior to ordinary organic rubbers in terms of heat resistance, chemical stability, electrical insulating, abrasion resistance, weatherability and ozone resistance etc...
With these unique characteristics, Silicone Rubber has been widely used to replace petrochemical products in various industries like aerospace, munitions industry, automobile, construction, electric and electronics, medical and food processing industry. Recently, these scopes of silicone application have been expanding at a great speed by the demand of industries that want more reliable elastomer.

Main Characteristics of Silicone Rubber:

- Excellent High and Low Temperature Resistance.
- Excellent Electrical Properties.
- Physiological Inertness.
- Excellent Weatherability.
- Oil Resistance.
- Flame Retardant.

GENERAL PROPERTIES

1. High bonding energy

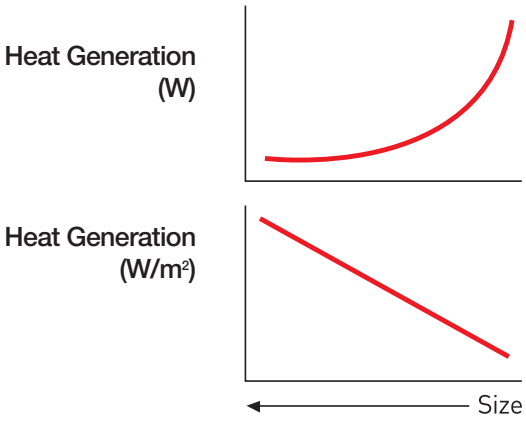
Silicone Rubber has siloxane bond (Si-O) of molecular structure as the main chains. While carbon bond, C-C, carries 84.9 Kcal/mol, siloxane bond carries 106.0 Kcal/mol It shows that siloxane bond has greater capacity and stability. As a result, Silicone Rubber has better heat resistance, electric conductivity and chemical stability than any other ordinary organic rubbers. Siloxane bond's energetic stability is secured due to sharp difference between Si and O in terms of electro-negativity making Si-O to be closest to ionic bond.

Classification	Bonding Energy Kcal/mol (KJ/mol)	
	C	Sl
C	84.9 (349)	58-80 (240-340)
Si	58-80 (240-340)	45 (189)
H	98.8 (414)	72.6 (304)
O	83.2 (349)	106.0 (423)

2. Low intermolecular force with spiral structure

With its coil shaped spiral structure and low intermolecular force, silicone (dimethylpolysiloxane) is highly elastic and compressible. Furthermore as methyl groups are located in the outside of coil structure, they are free to rotate on its own. As a result, Silicone Rubber has outstanding water repellency and contact resistance.

IMPORTANCE OF THERMAL CONDUCTIVITY SILICONE RUBBER



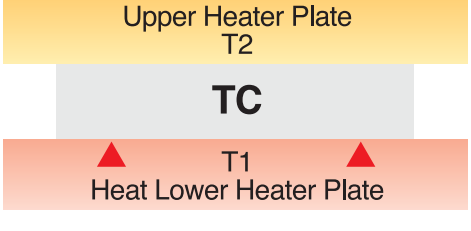
Technology Growing
Frequency Higher
Size Lighter

THERMAL CONDUCTIVITY K

Fourier's Law states that : Q = k

$$K = \frac{\frac{A \ \Delta T}{L}}{\frac{Q}{A}} \times \frac{L}{\Delta T}$$

Q = Conducted heat (cal/sec)
k = Thermal conductivity (cal/cm sec ℃)
A = Cross sectional area of test piece (cm^2)
L = Thickness of test piece (cm)
T = Temperature difference between
* SI-unit conversion factor 1 cal/cm sec ℃
= 418.605 W/m ℃
both sides of test piece(℃)



SOFT SILICONE

THERMAL CONDUCTIVITY PRODUCTS

HR-TSP is an advanced silicone rubber with high thermal conductivity and superior flame-retardant. By combining the inherent silicone rubber properties of heat resistance, electrical insulation and long-term aging into one compound, this universally applicable material can be made in an unlimited number of thermal management configurations.

HR-TSP is highly conformable and high heat conducting gel materials in a versatile sheet form. They easily fit most all shapes and sizes of components, including protrusions and recessed area.

FEATURE

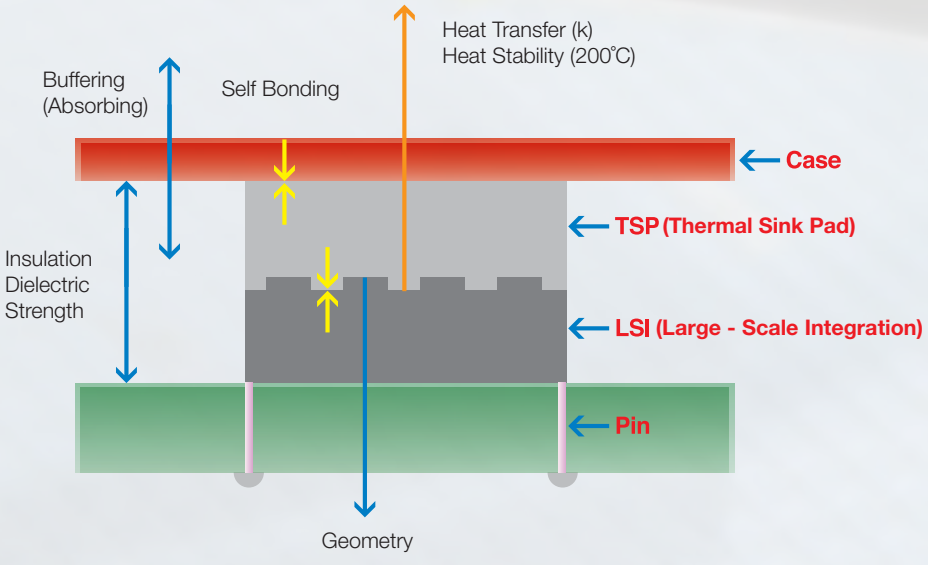
- Excellent thermal conductivity.
- Flexible and adhesive.
- Excellent flame retardant(UL94 V-0)
- Any thickness are available.
- Excellent electrical insulation.
- Retain good physical property in a wide range of temperature.

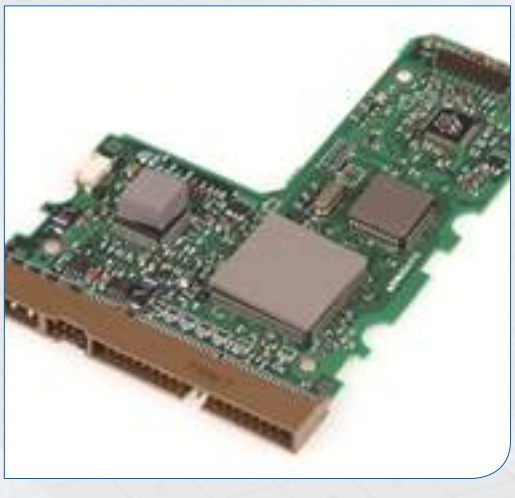
APPLICATION

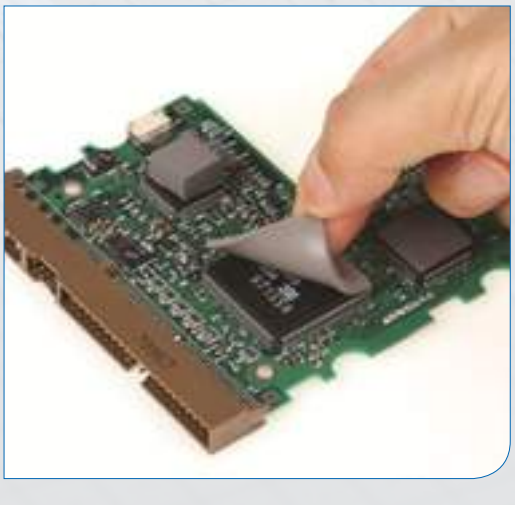
- Heat dissipation of MPU(Micro Processing Units)
- Heat dissipation of surface-mount Chips.
- Between a CPU and heat spreader.
- Between a CD ROM and a heat spreader.
- DVD and CD ROM Cooling.(6025/7030)
- RDRAM memory modules.(8035)

HR-TSP SERIES

TSP Characteristics



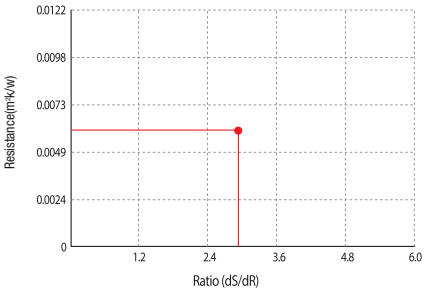




TYPICAL PROPERTIES OF TSP-N4015

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 45	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	30 ~ 70	ASTM D 2240
Specific Gravity (g/cm³)	2.4	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	$3x10^{13}$	ASTM D 257
Thermal Conductivity (W/mK)	1.5	ASTM 5470
Thermal Resistance (m²k/W)	$5.5*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

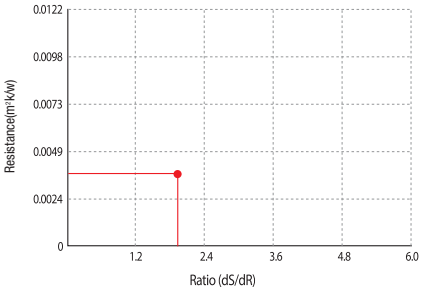
Thermal Resistance



TYPICAL PROPERTIES OF TSP-4020

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 45	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	40 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	2.7	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	$1x10^{13}$	ASTM D 257
Thermal Conductivity (W/mK)	2.0	ASTM 5470
Thermal Resistance (m²k/W)	$3.8*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

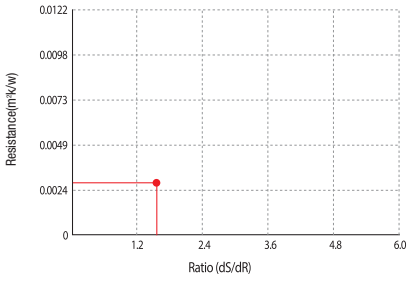
Thermal Resistance



TYPICAL PROPERTIES OF TSP-4025

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 45	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	40 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	2.8	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	2.5	ASTM 5470
Thermal Resistance (m²k/W)	$2.8*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

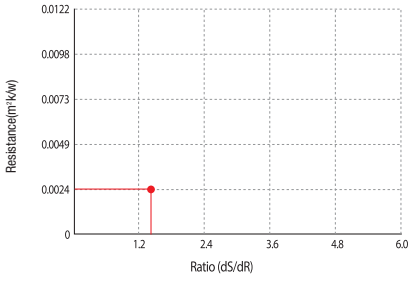
Thermal Resistance



TYPICAL PROPERTIES OF TSP-6030

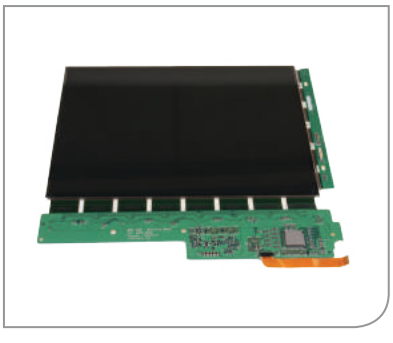
Properties	Value	Test Method
Thickness (mm)	0.5 ~ 45	ASTM D 374
Color	Gray	Visual
Hardness (Shore 00)	60 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	2.9	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{11}	ASTM D 257
Thermal Conductivity (W/mK)	3.0	ASTM 5470
Thermal Resistance (m²k/W)	$2.4*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

Thermal Resistance

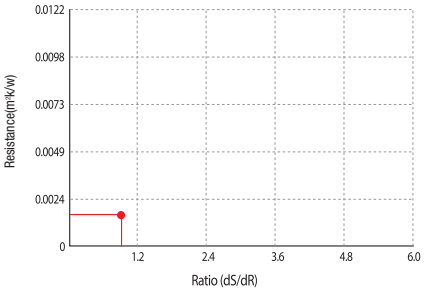


TYPICAL PROPERTIES OF TSP-7040

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 45	ASTM D 374
Color	Gray	Visual
Hardness (Shore 00)	60 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	3.1	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{11}	ASTM D 257
Thermal Conductivity (W/mK)	4.0	ASTM 5470
Thermal Resistance (m²k/W)	$1.7*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94



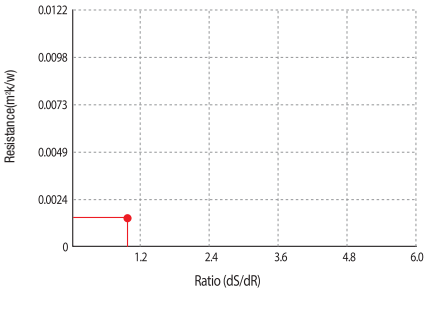
Thermal Resistance



TYPICAL PROPERTIES OF TSP-7050

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 45	ASTM D 374
Color	Gray	Visual
Hardness (Shore 00)	60 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	3.2	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{11}	ASTM D 257
Thermal Conductivity (W/mK)	5.0	ASTM 5470
Thermal Resistance (m²k/W)	$8.5*10^{-4}$	ASTM D 150
Flame Retardant level	V-0	UL 94

Thermal Resistance



COATED GLASS FIBER
THERMAL CONDUCTIVE SHEET

TSP-Fi-SERIES are filled thermally conductive polymer supplied on a rubber coated fiber glass. TSP-Fi- SERIES are a highly conformable.

Low modules silicone polymer filled with special conductive filler that excellent heat conductivity and flame retardant UL94 V-0 level together with good electrical properties.

FEATURE

- Special fillers to achieve specific performance and characteristics.
- Flexible and conformable.
- Good adhesive.
- Excellent flame retardant(UL94 V-0)
- Various thickness are available.
- Excellent electrical insulation.

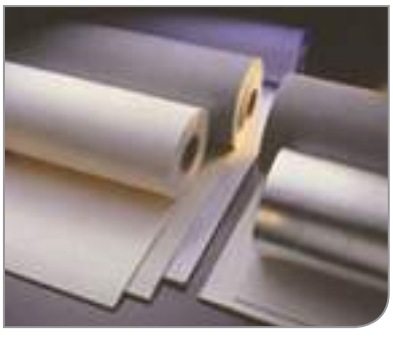
APPLICATION

- Heat dissipation of MPU(Micro Processing Units)
- Heat dissipation of surface-mount Chips.
- Between Power Sources and Heat Sink.
- Automotive systems.
- Isolate electrical components.
- Power supplies.
- Power semiconductors.

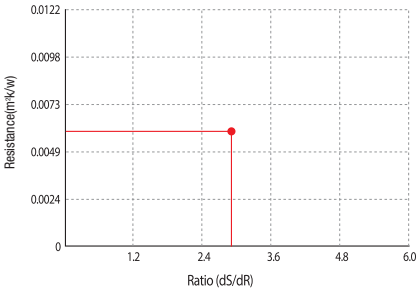
TSP-FI SERIES

TYPICAL PROPERTIES OF **TSP-FI 4015**

Properties	Value	Test Method
Thickness (mm)	0.3 ~ 2.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	40 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	2.4	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	1.5	ASTM 5470
Thermal Resistance (m²k/W)	$5.5*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

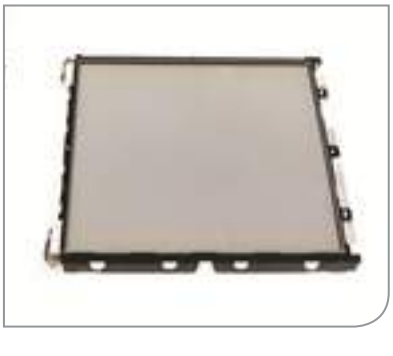


Thermal Resistance

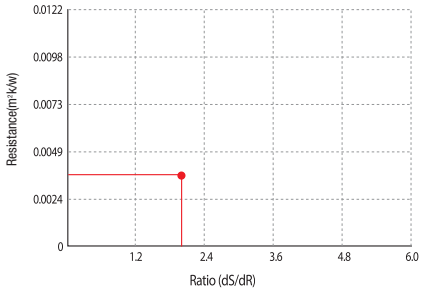


TYPICAL PROPERTIES OF **TSP-FI 4020**

Properties	Value	Test Method
Thickness (mm)	0.3 ~ 2.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	40 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	2.7	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	2.0	ASTM 5470
Thermal Resistance (m²k/W)	$3.8*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94



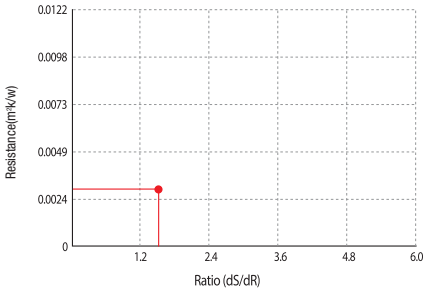
Thermal Resistance



TYPICAL PROPERTIES OF **TSP-FI 6025**

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 2.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	70 ~ 85	ASTM D 2240
Specific Gravity (g/cm³)	2.8	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	2.5	ASTM 5470
Thermal Resistance (m²k/W)	$2.8*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

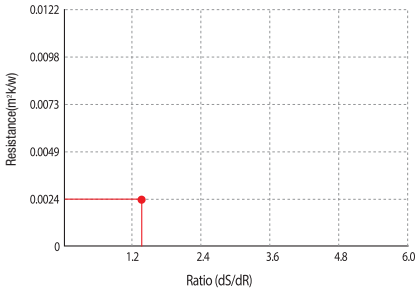
Thermal Resistance



TYPICAL PROPERTIES OF **TSP-FI 7030**

Properties	Value	Test Method
Thickness (mm)	0.5 ~ 2.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore 00)	60 ~ 80	ASTM D 2240
Specific Gravity (g/cm³)	3.0	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 6	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	3.0	ASTM 5470
Thermal Resistance (m²k/W)	$2.4*10^{-3}$	ASTM D 150
Flame Retardant level	V-0	UL 94

Thermal Resistance



HIGH HARDNESS
THERMAL CONDUCTIVITY SILICONE

HR-TC SERIES are high thermally conductivity rubber sheets.
They provide excellent heat conductivity and cushioning effect.

HR-TC SERIES are excellent mechanical and physical characteristics.
They are available for sheet, tape or as O-rings

FEATURE

- Excellent thermal conductivity.
- Excellent flame retardant(UL94 V-0)
- Various thickness are available.
- Excellent electrical insulation.
- Retain good physical property in a wide range of temperature.

APPLICATION

- Heat dissipation of surface-mount Chips.
- Between Power Sources and Heat Sink.
- Automotive systems.
- Isolate electrical components.
- Surface panel of LCD & LED

HR-TC SERIES

TYPICAL PROPERTIES OF TC 3007

Properties	Value	Test Method
Thickness (mm)	0.3 ~ 20.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore A)	35	ASTM D 2240
Specific Gravity (g/cm³)	1.9	ASTM D 792
Continue Use (°C)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 7	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	0.7	ASTM 5470

TC - 30 07

- 07 = Thermal conductivity(0.7W/mK)
- 30 = Hardness (Shore A)
- TC = Thermal Conductivity rubber

TYPICAL PROPERTIES OF TC 4010

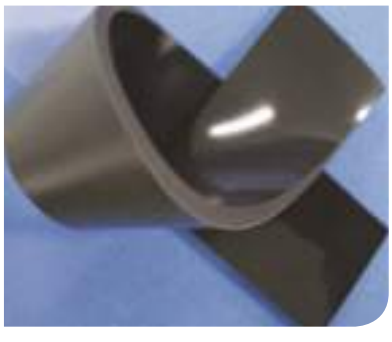
Properties	Value	Test Method
Thickness (mm)	0.3 ~ 20.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore A)	45	ASTM D 2240
Specific Gravity (g/cm³)	2.4	ASTM D 792
Continue Use (°C)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 7	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	1.0	ASTM 5470

TC - 40 10

- 10 = Thermal conductivity(1.0W/mK)
- 40 = Hardness (Shore A)
- TC = Thermal Conductivity rubber

TYPICAL PROPERTIES OF TC 5015

Properties	Value	Test Method
Thickness (mm)	0.3 ~ 20.0	ASTM D 374
Color	White/ Blue/ Gray/ Pink	Visual
Hardness (Shore A)	50	ASTM D 2240
Specific Gravity (g/cm^3)	2.4	ASTM D 792
Continue Use (℃)	- 60 ~ 150	-
Dielectric Breakdown (kV)	min 7	ASTM D 149
Volume Resistivity (Ωcm)	1×10^{13}	ASTM D 257
Thermal Conductivity (W/mK)	1.5	ASTM 5470



TC - 50 15

15 = Thermal conductivity(1.5W/mK)

50 = Hardness (Shore A)

TC = Thermal Conductivity rubber

HIGH PROPERTY
LSR SILICONE SHEET

LSI-SH-SERIES include excellent heat resistance, corona resistance and fine performance as an electrical insulator

Our line up includes high strength, transparent and flame retardant grades designed for a range of molding applications.
We are also developing new products for other specific applications

FEATURE

- High mechanical property.
- Hardness are available from 30 to 70 (Shore A)
- Excellent heat stability.
- Easy cutting and mounting.
- High transparency.

APPLICATION

- Cushion of electronic parts.
- Insulating mat.
- Furniture manufacturing.
- IT and display industry.
- Construction material.(500/XX)

LSR-SH SERIES

TYPICAL PROPERTIES OF LSI-SH 200/XX

Properties	200/30	200/50	200/70
Thickness (mm)	0.1~20.0	0.3 ~20.0	0.5~20.0
Appearance	Transparent	Transparent	Transparent
Hardness (Shore A)	30	50	70
Specific Gravity (g/cm^3)	1.11	1.12	1.15
Tensile Strength (kgf/cm^2)	85	90	90
Elongation (%)	650	550	300
Tear Strength (kgf/cm)	30	35	15
Dielectric Breakdown (kV)	20	20	20
Rebound Resilience (%)	50	55	60

LSI - SH - 200 / xx

- xx = Hardness(Shore A)
- 200 = HRS LSR Silicone series
- SH = Silicone Sheet
- LSI = HRS Liquid silicone ruber

TYPICAL PROPERTIES OF LSI-SH 500/XX

Properties	500/50	500/60	500/70
Thickness (mm)	0.5~20.0	0.5 ~20.0	0.5~20.0
Appearance	White/Black	White/Black	White/Black
Hardness (Shore A)	50	60	70
Specific Gravity (g/cm^3)	1.45	1.48	1.48
Tensile Strength (kgf/cm^2)	40	50	50
Elongation (%)	200	200	200
Tear Strength (kgf/cm)	10	7	7
Flame Retardant level (UL94)	V-0	V-0	V-0

LSI - SH - 500 / xx

- xx = Hardness(Shore A)
- 500 = Flame Retardant Silicone
- SH = Silicone Sheet
- LSI = HRS Liquid silicone ruber

PSA

PSA-Process Films

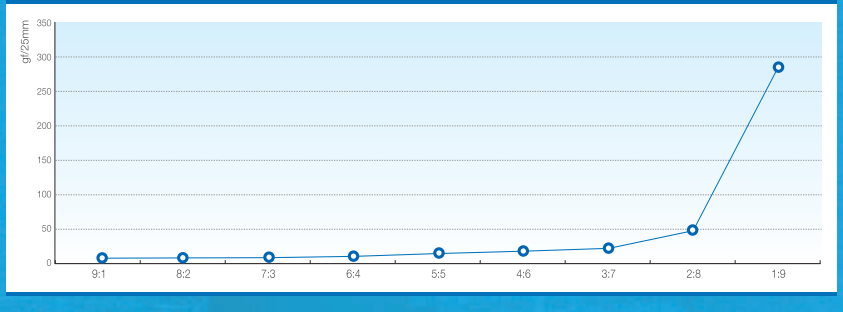
PSA (Pressure Sensitive Adhesive) for engineering has low to high adhesion, It has a wide range and is an ideal product in LCD protection electrical and electronic engineering.

Applications

- Electrical process films
- Graphic Films and labels
- LCD protection films
- Coating films and masking tape

Type	SP-6802	SP-9902
Appearance	Liquid	
Color	Clear	
Nonvolatile Content (%)	61 ~ 65	>99
Viscosity (cP)	30,000 ~ 60,000	40,000 ~ 60,000
180° Peel Adhesion(g/25mm)	>1,000	0.5 ~ 1.0
Features	Realization of a diverse range of adhesive strength by mixing the SP-6802 and SP-9903 at a prescribed ratio.	

Silicone PSA Adhesion Graph (SP-9902:SP-6802)



PSA for engineering Adhesion DATA

Test Method

- Substrate thickness : 50㎛
- Coating thickness : 10㎛
- Vulcanization conditions : 120㎛/1min30sec (HRS)
- SUS applicable adhesion measurement

Distinguish	HRS
Exterior	SP-9902
color	SP-6802

"ingredient Low viscosity + high viscosity"	"Adhesion (gf/25mm)"
9 : 1	0.7
8 : 2	1.0
7 : 3	1.4
6 : 4	2.2
5 : 5	5.4
4 : 6	9.0
3 : 7	16
2 : 8	43
1 : 9	280

Silicone PSA for special films

PSA for special film is different from PET film generally used. TPU or CPP film is suitable for special materials at low temperature (70℃). Products for vulcanization. It can be used as a protective material for various materials such as glass/metal/screen.

Applications

- Protective tape/film
- Image film and label
- LCD protective film
- Electrical/Electronic Engineering Film
- Coating film and masking tape

Type	SP-7001LT	SP-6803LT
Appearance	Liquid	
Color	Clear	
Nonvolatile	68~72	59~63
Viscosity	20,000~60,000	7,000~17,000
180 peel Adhesion	0.5~2.0	1100

Others

ACF Sheet

As a thermal conductivity sheet that is applied for ACF processing of LCD, PDP, LED panel, ACF sheet has superior thermal conductivity and heat stability and optimized products for adhesive ACF processing.

Applications

- Sheet for ACF process of LCD, PDP, LED panel
- Heat transfer sheet
- Heat resistant separate sheet
- Thermal diffusion sheet

Properties		ACF-7010	PIS-610
Hardness	Shore A	70	60
Specific Gravity	g/cm³	2.1	2.0
Dielectric Strength	kV/mm	20	20
Heat Resistance	200°C×48hrs	Good	Good
Thermail Conductivity	W/mK	1.0	1.0
Remark		Silicone only	Polyimide film Coating

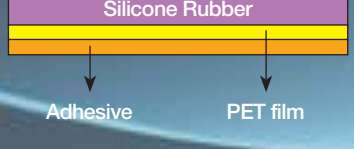
Spacer panel

Spacer panel product is produced by putting silicone rubber on tape or film such as PET, PE ect. It is applied for display space panel, silicone tape and so on.

Applications

- Spacer panel for TV , monitor etc . . .
- Electronic, electronics shield
- Silicone adhesive tape
- Silicone adhesive sheet
- Insulating tape, sheet.

Properties		One side Taping	Both Side Taping
Hardness	Shore A	30	40
Specific Gravity	g/cm³	1.12	1.12
Temperature Resistance	℃	-60 ~ 180	-60 ~ 180
Color	Visual	Black, Gray	Black, Gray
Thickness	mm	0.2~2.0	0.2~2.0



CERTIFICATES

ISO 9001

ISO 13485

ISO 14001

IATF 16949

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