

INSULATING & HEAT SINK MATERIAL

Thermal Insulator Sheets



Characteristic:

Insulation, heat sink, temperature endurance, RoHS compliance.

Usage:

Product Application such as electrical appliances, electronic devices, car mechanical machinery for heat sink and insulation purpose.

Specification:

Dimension: 300 mm x 50 m and 300 mm x 25 m (Roll form)

Thickness:

0.23, 0.3, 0.45 mm are supply in 50 m roll length, 0.8 mm is supply only in 25 m roll length.

Color: Gray

Technical Information:

	Properties	HC-1000	SBHC	Unit	Test Method
Physical	Color	Gray	Gray	Visual	-
	Reinforcement Layer	Fiberglass	Fiberglass	-	-
	Finish	Smooth	Smooth	Visual	-
	Thickness (Tol. ±0.02)	0.23-0.8	0.23-0.45	mm	ASTM D374
	Operating Temperature	-40~+220	-60~+100	℃	-
Mechanical	Specific Gravity	1.60	1.60	g/cm ³	ASTM D792
	Tensile Strength	160	200	kgf/cm ²	ASTM D412
	Tear Strength	0.70	0.60	kgf/cm	ASTM D642
	Elongation	7-12	4.5	%	ASTM D412
	Hardness	70 ± 5	60 ± 5	Shore A	ASTM D2240
Electrical	Voltage Breakdown	3.5	6.0	kV/mm	ASTM D149
	Volume Resistivity	2.0 x 10 ¹³	2.0 x 10 ¹³	Ω • cm	ASTM D257
Thermal	Thermal Conductivity	0.3	0.9	W/m.k	ASTM D5470
	Flammability Rating	V-0	V-0	-	UL94
Regulatory	RoHS Compliant	Yes	Yes	-	Lab. Certification
	PFOA Compliant	Yes	Yes	-	Lab. Certification
	PFO3 Compliant	Yes	Yes	-	Lab. Certification
	SVHC Compliant	Yes	Yes	-	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

INSULATING & HEAT SINK MATERIAL

General Silicone Rubber Tube



Characteristic:

Insulation, anti-friction, temperature endurance, compression endurance, anti-aging and RoHS compliance.

Usage:

Electrical appliances, electronic devices, mechanical machinery and other industries, such as water filter, drinking water cooler or heater, water infuse tube for coffee makers, shading cover for lighting.

Specification:

ID: 1.0 – 20 mm; OD: 2 – 20 mm

Thickness: 0.5 – 5.0 mm

Color: Upon request.

Technical Information:

	Properties	Typical Values	Unit	Test Method
Physical	Color	All	Visual	--
	Finish	Smooth	Visual	--
	Thickness	0.5~5.0	mm	ASTM D374
	Operating Temperature	-30~+220	°C	--
Mechanical	Specific Gravity	1.15 ± 0.1	g/cm ³	ASTM D792
	Tensile Strength	75 ± 5	kgf/cm ²	ASTM D412
	Elongation	≥160	%	ASTM D412
	Hardness	60~70 ± 5	Shore A	ASTM D2240
Electrical	Voltage Breakdown	4.0	kV	ASTM D149
	Volume Resistivity	1.5 x 10 ¹⁴	Ω • cm	ASTM D257
Regulatory	RoHS Compliant	Yes	--	Lab. Certification
	PFOA Compliant	Yes	--	Lab. Certification
	PFOS Compliant	Yes	--	Lab. Certification
	SVHC Compliant	Yes	--	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

INSULATING & HEAT SINK MATERIAL

Silicone Coated Fiberglass Sleeves



Characteristic:

Insulation, heat sink, compression resistance, heat endurance, corrosion resistance, flame retardant and RoHS compliance.

Usage:

Electrical appliances, electronic devices, internal parts such as electric heater, oven, electric boiler, motor and others.

Specification:

ID: 1.0 – 30.0 mm

Thickness: 0.28 – 0.40 mm

Color: White

Technical Information:

	Properties	TB-1500	TB-2500	TB-4000	Unit	Test Method
Physical	Color	White	White	White	Visual	--
	Finish	Silicone coated	Silicone coated	Silicone coated	Visual	--
	Thickness (Tol. ± 0.12)	0.28~0.40	0.43~0.53	0.43~0.66	mm	ASTM D374
	Operating Temperature	-30~+180	-30~+180	-30~+200	°C	--
Electrical	Voltage Breakdown	1.5	2.5	4.0	kV	ASTM D149
Regulatory	Flammability Rating	VW-1	VW-1	VW-1	--	UL1441
	RoHS Compliant	Yes	Yes	Yes	--	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

INSULATING & HEAT SINK MATERIAL

General Silicone Sheets



Characteristic:

Insulation, anti-friction, temperature endurance, compression endurance, anti-aging and RoHS compliance.

Usage:

Applicable in some higher temperature condition within internal parts of fax and copy machines as well as for heat pressed PCB production.

Specification:

Dimension: 300 mm x 50 m

Thickness: 0.3 mm

Color: Milky White

Technical Information:

	Properties	Typical Values	Unit	Test Method
Physical	Color	Milky White	Visual	-
	Reinforcement Layer	-	-	-
	Finish	Smooth	Visual	-
	Thickness	0.3 ± 0.03	mm	ASTM D374
	Operating Temperature	-35~+180	°C	-
Mechanical	Specific Gravity	1.20 ± 0.1	g/cm ³	ASTM D792
	Tensile Strength	35 ± 3	kgf/cm ²	ASTM D412
	Elongation	≥180	%	ASTM D412
	Hardness	40 ± 5	Shore A	ASTM D2240
Electrical	Voltage Breakdown	4.0	kV	ASTM D149
Regulatory	RoHS Compliant	Yes	-	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

INSULATING & HEAT SINK MATERIAL

Polyolefin Heat Shrink Sleeves



Characteristic:

Insulation, contraction in low temperature, Flexibility, high flame retardation, anti-solubility, RoHS compliance.

Usage:

Applicable in electrical appliances, telecommunication and industrialized automation field. For example, insulation and protection for the terminal end and linkage between electronic components; binding of wire rods, the color indications of electric wires, electric cables and electronic parts.

Specification:

ID: 0.8 – 180 mm

Thickness: 0.15 – 0.8 mm

Color: Black

Technical Information:

	Properties	Polyolefin (G5)	Unit	Test Method
Physical	Color	Black	Visual	--
	Finish	Smooth	Visual	--
	Thickness	0.15-0.80	mm	ASTM D374
	Heat Shock (No cracking)	Pass	--	ASTM D2671
	Cold Bend (-55°C, 4hrs.)	Pass	--	ASTM D2671
	Operating Temperature	-55~+125	°C	--
	Copper Corrosion	Pass	--	ASTM D2671
Mechanical	Tensile Strength	≥14.0	MPa min.	ASTM D412
	Tensile Strength after aging (Heat aging 158°C, 168hrs)	≥90	%	ASTM D638
	Elongation	≥400	%	ASTM D412
	Elongation after aging (Heat aging 158°C, 168hrs)	≥300	%	ASTM D638
Electrical	Voltage Withstand & Breakdown (60sec)	2.5kV, No Breakdown	kV	UL 224
	Dielectric strength	2500	V/mm	ASTM D2671
	Volume resistance	≥10 ¹⁴	Ω • cm	ASTM D257
Regulatory	Flammability Rating	VW-1	--	UL224
	RoHS Compliant	Yes	--	Lab. Certification

* The data / specification only apply to GENERAL POLYOLEFIN tubing material. Other information on different materials is available upon request.

* The above testing results comes from laboratory report, information are for your reference only.

LAMINATION / ANTI-FRICTION MATERIALS

Laminated Cushion Pads (with Iron Plate)



Characteristic:

High temperature tolerance, abrasion tolerance, anti-compression, chemical reagent resistance, anti-aging, oil resistance and with RoHS compliance.

Usage:

The flat surface allows it to be used in the production process of FPC, which have excellent shock absorbence and works well against compression and coaretation; it can also be used repeatedly under high temperature.

Specification:

Dimension: 380 mm x 450 mm, 545 mm x 600 mm

Thickness: 3 mm

Color: Orange

Technical Information:

	Properties	IR-380x450 IR-545x600	Unit	Test Method
Physical	Color	Orange	Visual	-
	Surface Finish	Iron	Visual	-
	Total Thickness	3 ± 0.3	mm	ASTM D374
	Operating Temperature	>250	℃	-
Mechanical	Tensile Strength	>75	kgf/cm ²	ASTM D412
	Elongation	>180	%	ASTM D412
	Hardness	50 ± 5	Shore A	ASTM D2240
	Compression (gauge pressure)	120~130	kg/cm ²	-
	Compression (surface pressure)	30~40	kg/cm ²	-
	Cure Treatment	160℃ (2 hours)	-	1 hour curing, 1 hour cooling at room temperature
	Life Expectancy	10000~15000	Times	85kg/180~190℃ 60~120 seconds between strike times
Regulatory	RoHS Compliant	Yes	-	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

* Life expectancy will differ according to actual operational condition included facilities and environment.

LAMINATION / ANTI-FRICTION MATERIALS

Laminated Cushion Pads (with Aluminium Foil)



Characteristic:

High temperature tolerance, abrasion tolerance, anti-compression, chemical reagent resistance, anti-aging, oil resistance and with RoHS compliance.

Usage:

The flat surface allows it to be used in the production process of FPC, which performs excellent shock absorbent and works well against compression and coarctation; it can also be used repeatedly under high temperature.

Specification:

Dimension: 400 mm x 510 mm, 600 mm x 660 mm

Thickness: 0.6 mm

Color: Orange

Technical Information:

	Properties	AL-400x510 AL-600x660	Unit	Test Method
Physical	Color	Orange	Visual	--
	Surface Finish	Aluminum	Visual	--
	Total Thickness	0.6±0.1	mm	ASTM D374
	Operating Temperature	>250	℃	--
Mechanical	Hardness	50 ± 5	Shore A	ASTM D2240
	Compression (gauge pressure)	120~130	kg/cm ²	--
	Compression (surface pressure)	30~40	kg/cm ²	--
	Cure Treatment	160℃ (2 hours)	--	1 hour curing, 1 hour cooling at room temperature
	Life Expectancy	10000~15000	Times	85kg/180~190℃ 60~120 seconds between strike times
Regulatory	RoHS Compliant	Yes	--	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

* Life expectancy will differ according to actual operational condition included facilities and environment.

LAMINATION / ANTI-FRICTION MATERIALS

Laminated Cushion Pads (PCB / FPC)



Characteristic:

High temperature tolerance, abrasion endurance, anti-compression, chemical reagent resistance, anti-aging, oil resistance and RoHS compliance.

Usage:

To be used in the production process of hard type of PCB. It is with good shock absorbent and against compression; it can also be used repeatedly under high and low temperature.

Specification:

Dimension: 600 mm x 600 mm, 550 mm x 650 mm

Thickness: 1.6 mm, 0.8 mm

Color: Red, Green

Technical Information:

	Properties	PCB-600x600	PCB-550x650	Unit	Test Method
Physical	Color	Brick Red	Green	Visual	--
	Reinforcement Layer	Fiberglass	Fiberglass	--	--
	Total Thickness	1.6 ± 0.1	0.8 ± 0.05	mm	ASTM D374
	Operating Temperature	-40→+250	-40→+220	℃	--
Mechanical	Specific Gravity	1.2~1.6	1.2~1.6	g/cm ³	ASTM D792
	Hardness	50 ± 5	50 ± 5	Shore A	ASTM D2240
	Compression (gauge pressure)	120~130	120~130	kg/cm ²	--
	Compression (surface pressure)	30~40	30~40	kg/cm ²	--
	Cure Treatment	180℃ (2 hours)	160℃ (2 hours)	--	1 hour curing, 1 hour cooling at room temperature
Life Expectancy	10000~15000	10000~15000	Times	85kg/180-190℃ 60-120 seconds between strike times	
Regulatory	RoHS Compliant	Yes	Yes	--	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

* Life expectancy will differ according to actual operational condition includes facilities and environment.

FLAME RETARDANT MATERIALS

Flame Retardant Mats



Characteristic:

Flame retardant, heat sink, high compression endurance, high temperature endurance, insulation and RoHS compliance.

Usage:

For flame retardant and insulation purpose, especially suited for overheated internal parts of machinery and electronic devices due to high compression.

Specification:

Dimension: 300 mm x 300 mm

Thickness: 0.5 – 3 mm

Color: Creamy White

Technical Information:

	Properties	IR-380x450 IR-545x600	Unit	Test Method
Physical	Color	Orange	Visual	–
	Surface Finish	Iron	Visual	–
	Total Thickness	3 ± 0.3	mm	ASTM D374
	Operating Temperature	>250	°C	–
Mechanical	Tensile Strength	>75	kgf/cm ²	ASTM D412
	Elongation	>180	%	ASTM D412
	Hardness	50 ± 5	Shore A	ASTM D2240
	Compression (gauge pressure)	120~130	kg/cm ²	–
	Compression (surface pressure)	30~40	kg/cm ²	–
	Cure Treatment	160°C (2 hours)	–	1 hour curing, 1 hour cooling at room temperature
	Life Expectancy	10000~15000	Times	85kg/180~190°C 60~120 seconds between strike times
Regulatory	RoHS Compliant	Yes	–	Lab. Certification

* The above testing results comes from laboratory report, information are for your reference only.

* Life expectancy will differ according to actual operational condition included facilities and environment.