PRODUCT CATALOG

Thermal Interface Materials

KITAGAWA INDUSTRIES America, Inc.
http://KGS-IND.com
Sales@KGS-IND.com
Toll Free: 1-855-EMC-PART

NEW!

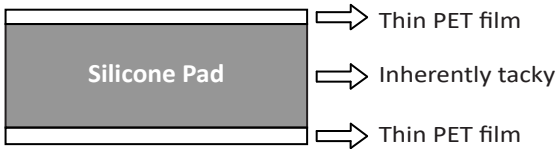
Thermal Pads
IMTH Series

RoHS Compliant

Halogen Free HF

Silicone base thermal pads

Cross-section view



Specifications

		STANDARD		HIGH PERFORMANCE		
Property		IMTH15	IMTH30*	IMTH50	IMTH70	Test Method
Material	Binder	Silicone	Silicone	Silicone	Silicone	—
	Filler	Alumina	Alumina	Alumina	Alumina	—
	Top Release Liner	PET	PET	PET	PET	—
	Bottom Release Liner	PET	PET	PET	PET	—
Mechanical Properties	Thickness (mm)	0.3 ~ 25	0.3 ~ 10	0.5 ~ 10	0.5 ~ 10	—
	Standard Sheet Size (mm)	200 x 300	200 x 300	200 x 300	200 x 300	—
	Top Release Liner Color	Clear	Clear	Clear	Clear	—
	Silicone pad Color	Gray	Gray	Gray	Gray	—
	Bottom Release Liner Color	Clear	Clear	Clear	Clear	—
	Hardness (shore 00)	55 ± 10**	60 ± 10	65 ± 10	65 ± 10	ASTM D2240
	Specific Gravity	2.5	2.9	3.0	3.2	ASTM D792
	Continuous Usage Temp (°C)	-40 ~ 200	-40 ~ 200	-40 ~ 200	-40 ~ 200	—
Electrical Properties	Dielectric Breakdown (KVac/mm)	10	6	6	6	ASTM D149
	Volume Resistivity (Ω/cm)	10^{13}	10^{12}	10^{12}	10^{12}	ASTM D257
Thermal Conductivity (W/m•K)		1.5	3.0	5.0	7.0	ASTM E1530
Flame Retardant		UL94V0 Equivalent	UL94V0 Equivalent	UL94V0 Equivalent	UL94V0 Equivalent	UL94

*IMTH30S soft version available: shore 40 ± 10 / with fiberglass available

**With fiberglass hardness 60 ± 10 (shore 00)

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KGS KITAGAWA INDUSTRIES America, Inc.
2860 Zanker Road, Suite 102 San Jose, CA 95134
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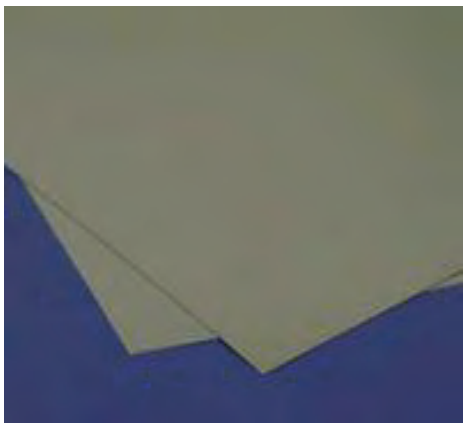
Thermal Pad
CPVT Series

NEW

Silicone-Free



RoHS Compliant

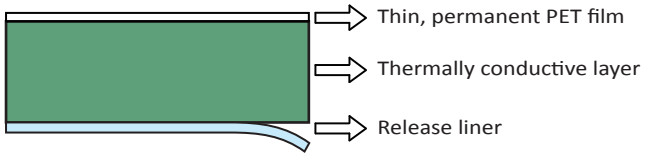
Ultra-thin, thermally conductive sheet, suitable for devices where clearance is limited

- Available thicknesses ranging from 0.1mm~0.25mm at every 0.05mm pitch
- The load onto PCB can be minimized by choosing the appropriate thickness
- Sheet form with single-side adhesive provides better workability compared to grease
- Suitable for thin designs of mobile devices such as smart phones, tablets, etc

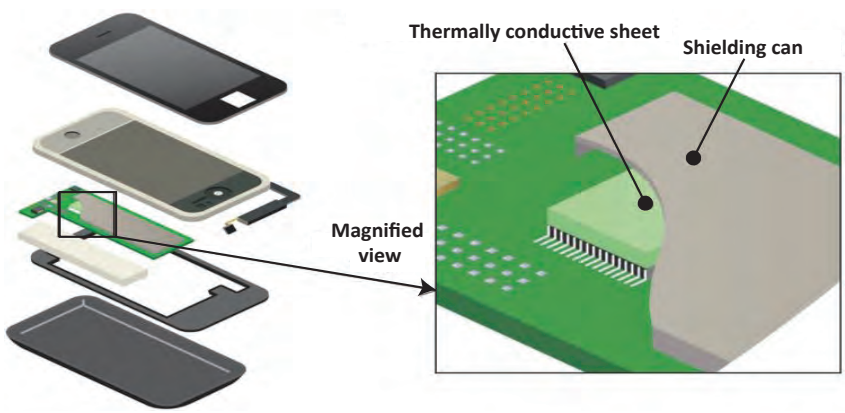
Properties

Property	Test Method	CPVT-F
Thickness (mm)	—	0.10, 0.15, 0.20, 0.25
Standard Sheet Size (mm)	—	210 x 510
Thermal Conductivity (W/m•K)	JIS R 2616 (hot wire method)	2.0
Specific Gravity	JIS Z 8807	1.94
Hardness (ASKER C)	JIS K 7312	28
Tensile Strength (MPa)	JIS K 6251	4.38
Elongation (mm)	JIS K 6251	3.46
Volume Resistivity (Ω • cm)	JIS K 6911 (compliant)	1.0×10^{13}
Breakdown Voltage (kV/mm)	JIS C 2110-1 (compliant)	11.1
Withstanding Voltage (kV/mm)	JIS C 2110-1 (compliant)	5.0
Dielectric Constant (1 MHz)	Company Standard	6.69
Loss Tangent (1 MHz)	Company Standard	0.08
Flame Resistance	UL94	—
Operating Temperature (°C)	—	-20 ~ 100
Color	—	Green

Cross-section view



Application



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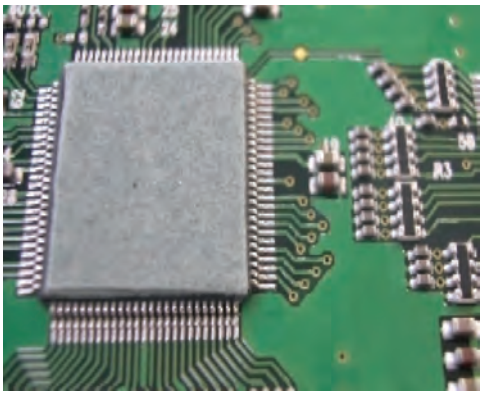
Thermal Pad
CPVS Series

NEW

Silicone-Free



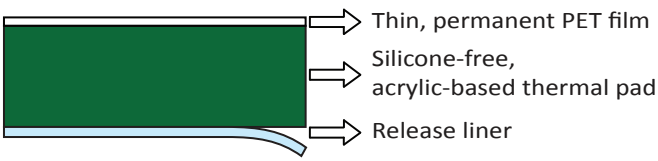
RoHS Compliant

Soft (ASKER C 18) silicone-free thermal pad

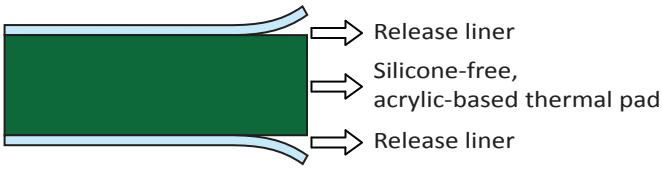
- Excellent stress relaxation property reduces the stress on the elements after mounting.
- Silicone-free material – no siloxane outgassing and reduced oil bleed
- One side self-tacky and both sides self-tacky are available.
- Suitable for vibration control as well.
- Highly conformable, low thermal resistance.

Cross-section view

CPVS-F series: one side PET, one side naturally tacky



CPVS series: both sides naturally tacky

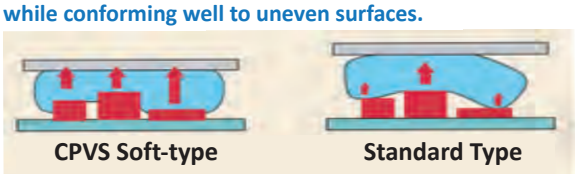


Properties

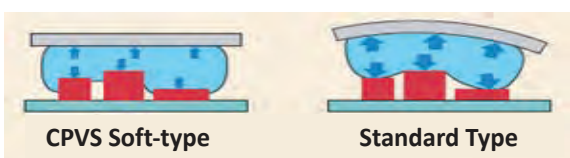
Property (test method)	CPVS-F	CPVS
Thickness (mm)	0.3, 0.5, 1.0, 1.5, 2.0, 2.5	1.0, 1.5, 2.0, 2.5
Standard Sheet Size (mm)	210 x 510	210 x 510
Thermal Conductivity (W/m•K) (JIS R 2616 (hot wire method))	2.0	2.0
Specific Gravity (JIS Z 8807)	1.94	1.94
Hardness (ASKER C) (JIS K 7312)	18	18
Tensile Strength (MPa) (JIS K 6251)	0.32	0.16
Elongation (mm) (JIS K 6251)	5.38	177.5
Volume Resistivity (Ω • cm) (JIS K 6911 (compliant))	$5.3x\ 10^{11}$	$5.3x\ 10^{11}$
Breakdown Voltage (kV/mm) (JIS C 2110-1 (compliant))	4.3	3.9
Withstanding Voltage (kV/mm) (JIS C 2110-1 (compliant))	2.8	2.2
Dielectric Constant (1 MHz) (company standard)	12.1	14.4
Loss Tangent (1 MHz) (company standard)	0.08	0.07
Flame Resistance (UL94)	V-2 (t0.5 - 2mm)	V-2 (t0.5 - 2mm)
Loss Factor (Measured by FWHM method)	0.9	0.9
Operating Temperature (°C)	-40 ~ 100	-40 ~ 100
Color	Green	Green

Features

Soft type thermal pads provide low thermal resistance, while conforming well to uneven surfaces.



Soft type thermal pads more evenly distribute pressure.



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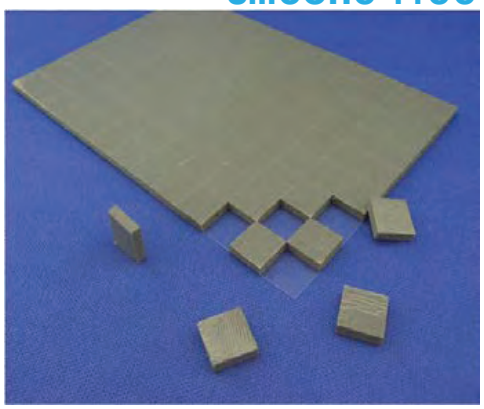
Thermal Pad
CPSS Series

NEW

Silicone-Free



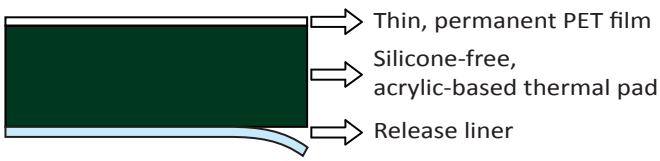
RoHS Compliant

Ultra-soft (ASKER C 8) silicone-free thermal pad

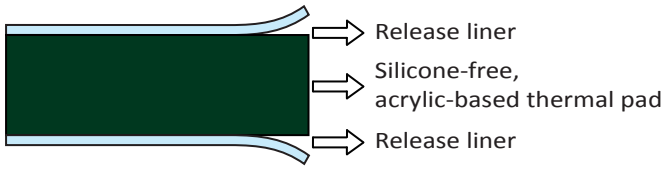
- Super soft and compliable material allows for less pressure on the heat source, such as the IC or PCB, when compared to a standard TIM
- Pliability of the material allows for lower thermal resistance on an uneven surface
- Silicone-free material – no siloxane outgassing
- Suitable for vibration control

Cross-section view

CPSS-F series: one side PET, one side naturally tacky



CPSS series: both sides naturally tacky

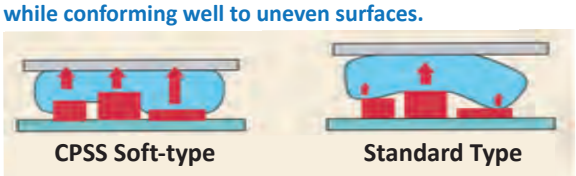


Properties

Property	Test Method	CPSS-F	CPSS
Thickness (mm)	—	1.0, 1.5, 2.0, 2.5, 3.0, 4.0	4.0
Standard Sheet Size (mm)	—	210 x 510	210 x 510
Thermal Conductivity (W/m•K)	JIS R 2616 (hot wire method)	2.0	2.0
Specific Gravity	JIS Z 8807	1.92	1.92
Hardness (ASKER C)	JIS K 7312	8	8
Tensile Strength (MPa)	JIS K 6251	0.28	—
Elongation (mm)	JIS K 6251	6.21	—
Volume Resistivity (Ω • cm)	JIS K 6911 (compliant)	1.0×10^{12}	1.0×10^{12}
Breakdown Voltage (kV/mm)	JIS C 2110-1 (compliant)	3.5	—
Withstanding Voltage (kV/mm)	JIS C 2110-1 (compliant)	2.8	—
Dielectric Constant (1 MHz)	Company Standard	14.6	—
Loss Tangent (1 MHz)	Company Standard	0.09	—
Flame Resistance	UL94	V-2 (t:1.0 - 3.0mm) V-0 (t:4.0mm)	—
Operating Temperature (°C)	—	-40 ~ 100	-40 ~ 100
Color	—	Dark Green	Dark Green

Features

Soft type thermal pads provide low thermal resistance, while conforming well to uneven surfaces.



Soft type thermal pads more evenly distribute pressure.

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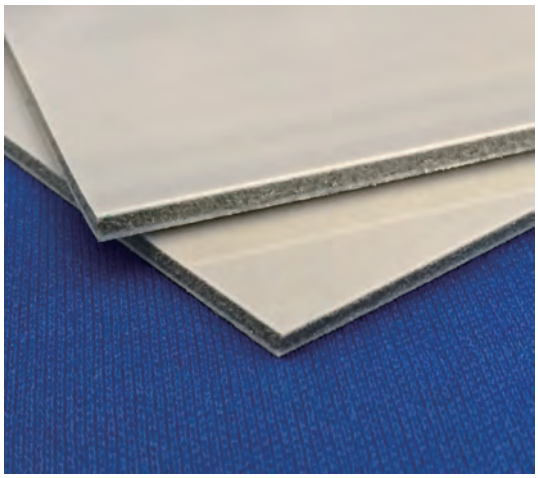
Thermal Pad
CPVP-F Series

NEW

Silicone-Free



RoHS Compliant

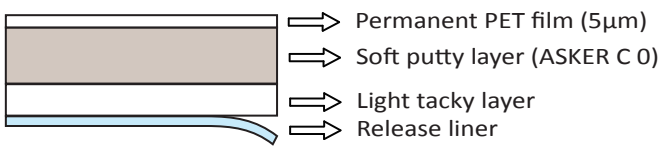
Soft, 2W/m•K silicone-free thermal putty

- Super compliable (ASKER C 0) material sandwiched between thin permanent PET film and light tacky layer for easy handling
- Thin permanent PET film provides mechanical strength and prevents dust and debris from getting trapped on the putty surface
- Because the CPVP is so soft, very little pressure is applied to components
- No concerns for siloxane outgassing or oil bleeding
- Operating temperature: -40 ~ 125˚C
- Custom die-cutting available upon request

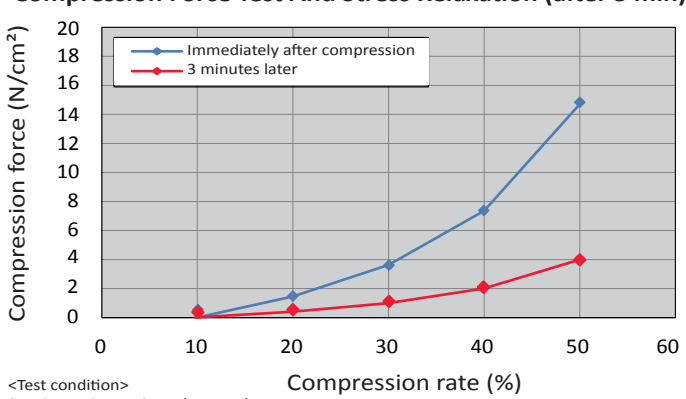
Properties

Property	Test Method	CPVP-F
Thickness (mm)	—	1.0, 2.0, 3.0, 4.0, 5.0, 6.0
Standard sheet size (mm)	—	210 x 510
Thermal Conductivity (W/m•K)	JIS R 2616 Hot-wire method	2.0
	ISO 22007-2 Hot-disc method	1.4
Hardness (ASKER C)	JIS K 7312	0 (putty layer)
Volume Resistivity (Ω • cm)	JIS K 6911	1.0 X 10^{11}
Flame Resistance	UL94	V-0
Operating Temperature (°C)	—	-40 ~ 125
Color	—	Dark Green / White

Cross-section view



Compression Force Test And Stress Relaxation (after 3 min)



<Test condition>
Specimen size: □10mm (t=4 mm)
Cross-head: 1mm / min
Compression plate material
Top: Stainless steel Φ28 mm
Bottom: Gold plated copper Φ106mm

Test Results

Compression rate (%)	10%	20%	30%	40%	50%
Compression force (N)	0.5	1.7	3.8	7.6	15.6
Stress relaxation (N)	0.1	0.4	1.1	2.1	4.1

Comparison between Compression test vs Stress relaxation test

Compression test data shows the amount of applied force (N) at the moment the test sample is compressed. Stress relaxation data uses the same test set up as the compression test, but the data is taken after a certain amount of time has passed (such as three minutes). With our soft and compliable materials, the amount of force tends to ease over time. In the long-term, it is more accurate to consider the data from the stress relaxation test since the force is much less than initial compression force. However, in some cases where there are delicate components that can only accept up to a specified amount of force, the peak compression force from our compression test should be considered.

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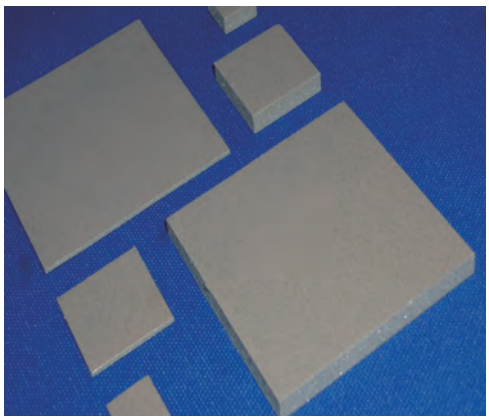
NEW!

Thermal Pad
CPVH Series

RoHS Compliant

Silicone-Free

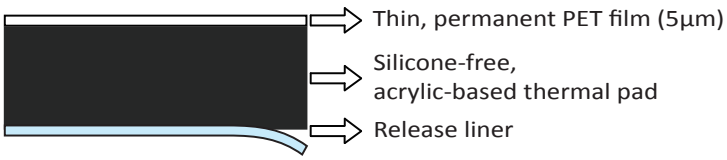


Soft, 3W/m•K silicone-free thermal pad for high operating temperature applications

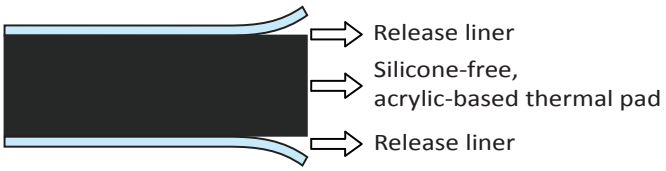
- Soft (ASKER C 15) silicone free thermal pad
- Compliable thermal pad helps to crowd out air bubbles to reduce thermal resistance
- No siloxane outgassing or oil bleed
- One side thin permanent PET film and one side naturally tacky is standard
- Both sides self-tacky available in 2mm thickness and above
- Custom profile available upon request
- Operating temperature: -40 ~ 125˚C

Cross-section view

CPVH-F series: one side PET, one side naturally tacky



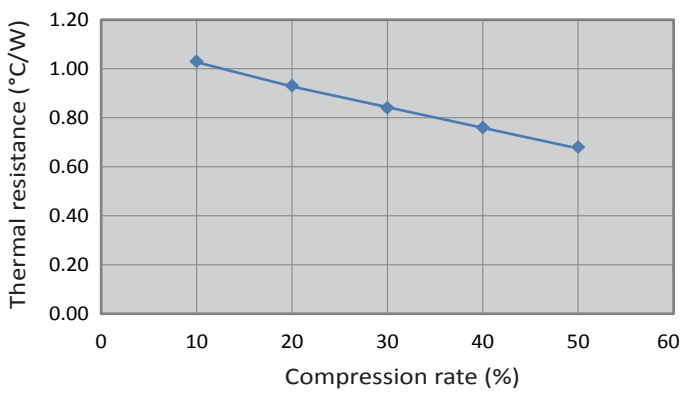
CPVH series: both sides naturally tacky



Properties

Property	Test Method	CPVH	
Thickness (mm)	—	One side tacky	0.5,1.0,1.5,2.0, 2.5,3.0,3.5,4.0
		Both side tacky	2.0,3.0,4.0
Standard sheet size (mm)	—	210 x 510	
Thermal Conductivity (W/m•K)	JIS R 2616 Hot-wire method	3.0	
	ISO 22007-2 Hot-disc method	2.1	
	ASTM D5470	2.6	
Hardness (ASKER C)	JIS K 7312	15	
Volume Resistivity (Ω • cm)	JIS K 6911	1.0×10^{11}	
Flame Resistance	UL94	V-0 Equivalent	
Operating Temperature (°C)	—	-40 ~ 125	
Color	—	Brown	

Compression Rate vs. Thermal Resistance



<Measurement condition>
Test method: ASTM D5470
Specimen size: □25mm (t=2mm)
Applied voltage: 20W

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NEW!

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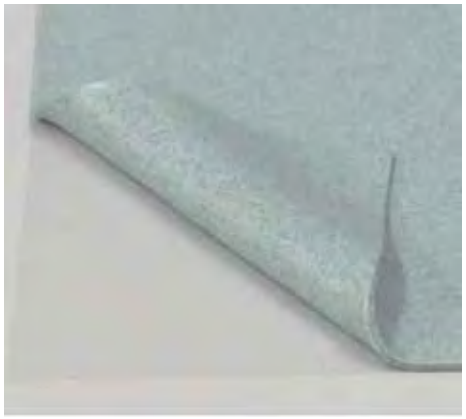
CPSH Series

RoHS Compliant

Silicone-Free

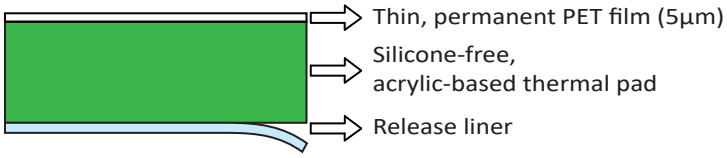


Soft, 5W/m • K silicone-free thermal pad for high operating temperature applications

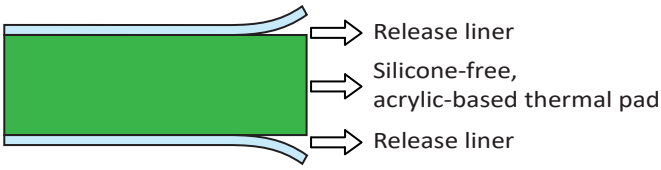
- Soft (ASKER C 32) silicone-free thermal pad
- Compliable thermal pad helps to crowd out air bubbles to reduce thermal resistance
- No siloxane outgassing or oil bleed
- Available in one side thin, permanent PET film and one side naturally tacky; and both sides naturally tacky
- Custom profile available upon request
- Operating temperature: -40 ~ 125˚C

Cross-section view

CPSH-F series: one side PET, one side naturally tacky



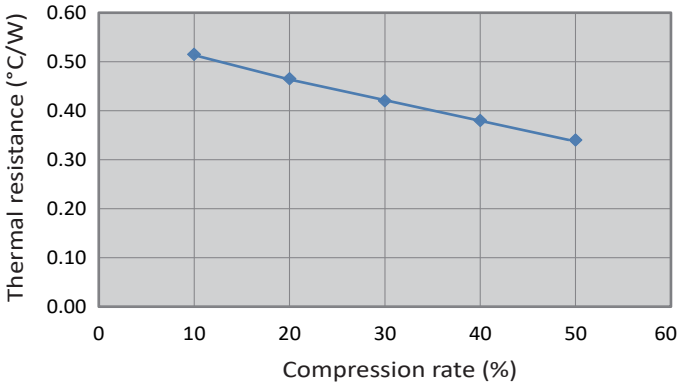
CPSH series: both sides naturally tacky



Properties

Property	Test Method	CPSH
Thickness (mm)	—	1.0 ,1.5 ,2.0 ,2.5 3.0 , 3.5 , 4.0
Standard Sheet Size (mm)	—	210 x 510
Thermal Conductivity (W/m•K)	JIS R 2616 Hot-wire method	5.0
	ISO 22007-2 Hot-disc method	3.7
Hardness (ASKER C)	JIS K 7312	32
Volume Resistivity (Ω • cm)	JIS K 6911	1.0 X 10^{11}
Flame Resistance	UL94	V-0 Equivalent
Operating Temperature (°C)	—	-40 ~ 125
Color	—	Light Green

Compression Rate vs. Thermal Resistance



<Measurement condition>
Test method: ASTM D5470
Specimen size: □25mm (t=2mm)
Applied voltage: 20W

KGS America
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Please request for detailed product specification data prior to purchase

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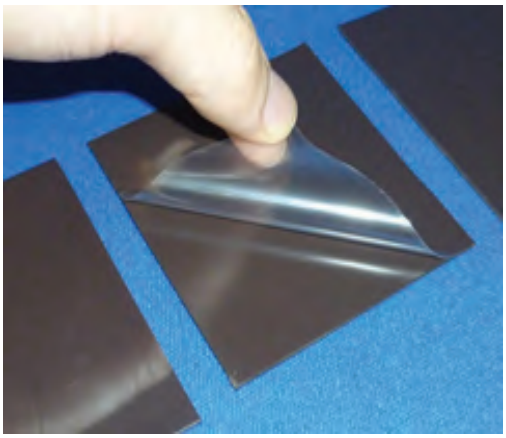
EMI Absorber And Thermal Pad
EMPV4-F Series

NEW

Silicone-Free



RoHS Compliant

Silicone-free thermal interface material with EMI noise suppression

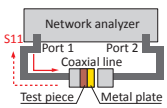
- No siloxane outgassing concerns
- Compliable material (ASKER C 40) that conforms to uneven surfaces
- Excellent EMI absorber performance (μ'=13 at 10MHz)
- High operating temperature from -40 ~ +110˚C
- Custom profile available upon request (such as layering together with another silicone free thermal pad)

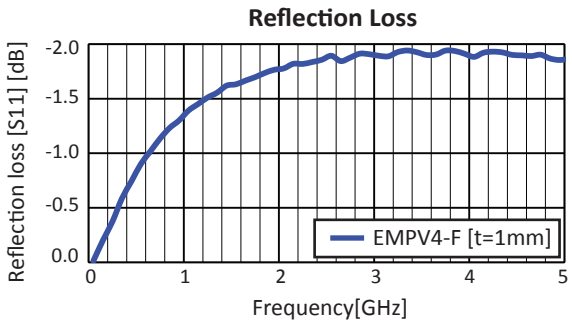
Cross-section view

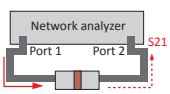
*both sides tacky available upon request

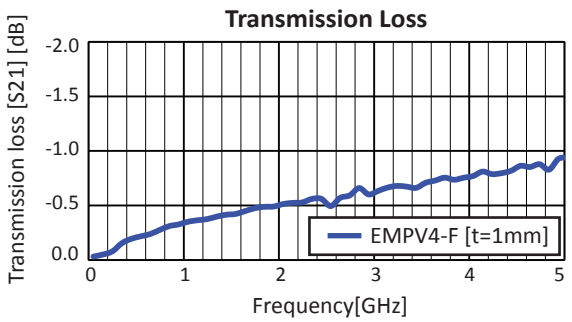
Properties

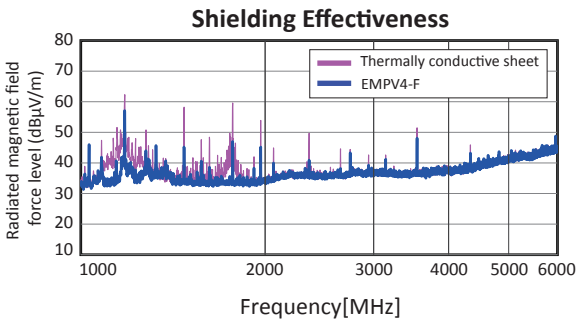
Property	Test Method	EMPV4-F
Thickness (mm)	—	1.0, 1.5, 2.0
Standard Sheet Size (mm)	—	210 x 510
Thermal Conductivity (W/m•K)	JIS R2616 Hot-wire method	1.5
	ISO 22007-2 Hot-disc method	1.3
	ASTM D5470	1.4
Hardness (ASKER C)	JIS K7312	40
Magnetic Permeability (μ' at 10MHz)	—	13
Volume Resistivity (Ω • cm)	JIS K 6911	1 X 10^{12}
Flame Resistance	UL94	V-0 Equivalent
Operating Temperature (°C)	—	-40 ~ 110
Color	—	Black

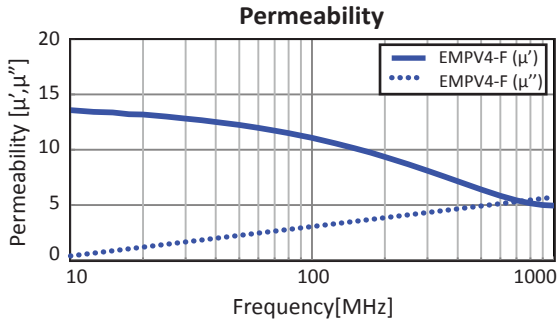












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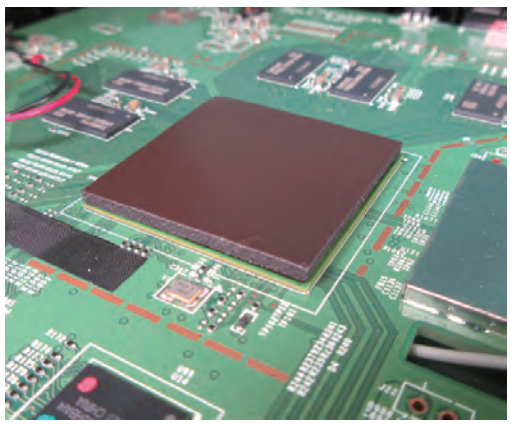
EMI Absorber And Thermal Pad
EMPV5-F Series

NEW

Silicone-Free

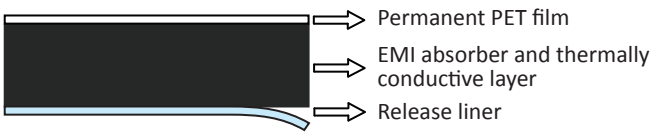


Silicone-free thermal interface material with EMI noise suppression

RoHS Compliant

- KGS-original formulation allows for great EMC noise suppression
- Recommended frequency range from 500MHz ~ 3GHz
- Silicone-free material, great for applications sensitive to siloxane and oil-bleeds
- Compliable material (ASKER C 30) that conforms to uneven surfaces
- High operating temperature from -40 ~ +110˚C

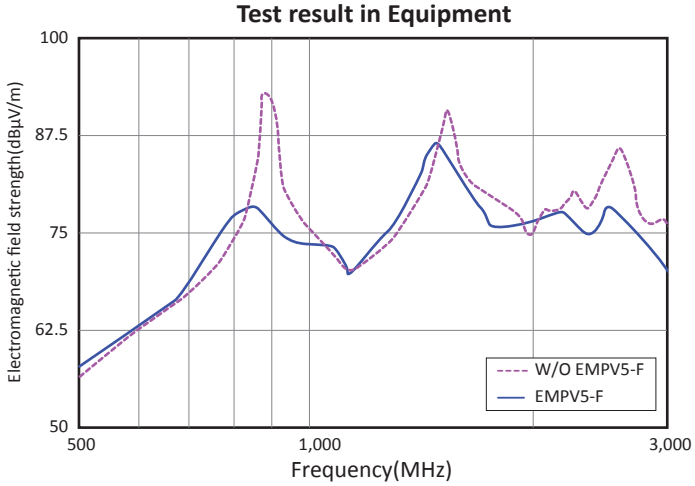
Cross-section view



Properties

Property	Test Method	EMPV5-F
Thickness (mm)	—	1.0, 1.5, 2.0, 2.5,3.0, 3.5
Thermal Conductivity (W/m•K)	ISO22007-2 Hot-wire method	0.8
Hardness (ASKER C)	JIS K 7312	30
Hardness (Shore 00)	ASTM D 2240	60
Magnetic Permeability (at 10MHz)	—	7
Volume Resistivity (Ω • cm)	JIS K 6911	1 X 10^{11}
Breakdown Voltage (kV/mm)	JIS C 2110-1	8.8
Withstanding Voltage (kV/mm)	JIS C 2110-1	5.0
Flame Resistance	UL94	V-0 Equivalent
Operating Temperature (°C)	—	-40 ~ 110
Color	—	Black

Test result in Equipment



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Silicone-Free

Phase Change Gel Thermal Pad
CGD/CGDR Series

RoHS Compliant

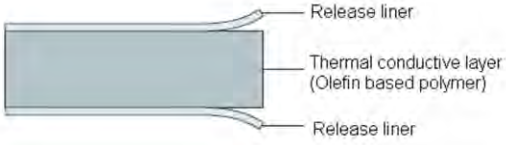
Prior to using KGS part please read our "Product Important Notice" at http://kgs-ind.com/products/product-important-notice/

Phase change material secures close contact with heating elements and easy and clean handling

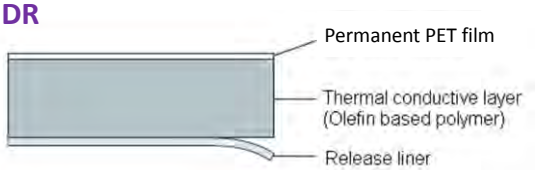
- Thermal interface material for use between heating elements and heat sinks
- Low thermal resistance and highly conformable
- Phase change temperature: 50°C
- Easy and clean handling – Solid at room temperature and no need for measurement like grease
- Silicone-free material – eliminates concerns over contact failure due to siloxane gas

Structure

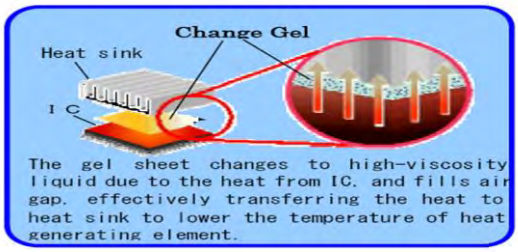
CGD



CGDR



Features



Typical properties

	Test Method	CGD	CGDR
Standard Sheet Size (mm)		200 x 200 ±2.5	
Thickness (mm)	-	0.25 ±0.025, 0.5 ±0.05	
Color	Visual Check	Gray	
Phase change temperature	-	50°C	
Operating temperature	-	-20~+100°C	-20~+90°C
Thermal Conductivity (W/m·K)	QTM Method	2.0	
Volume resistivity (Ω·cm)	-	$1.0x10^{14}$	
Carrier	-	N/A	PET (one side)

Please request for detailed product specification data prior to purchase.

KITAGAWA INDUSTRIES America, Inc.
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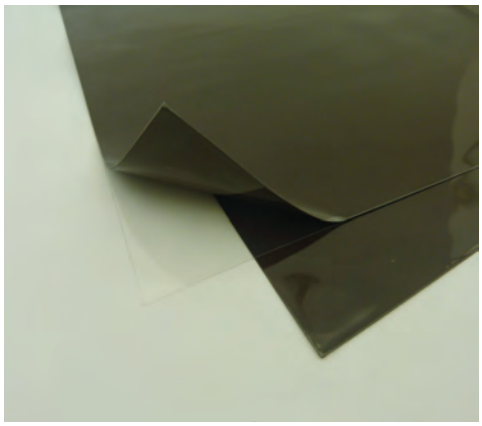
www.kgs-ind.com sales@kgs-ind.com

Change Gel Thermal Pad and EMC Dual Function
CGE Series

Silicone-Free

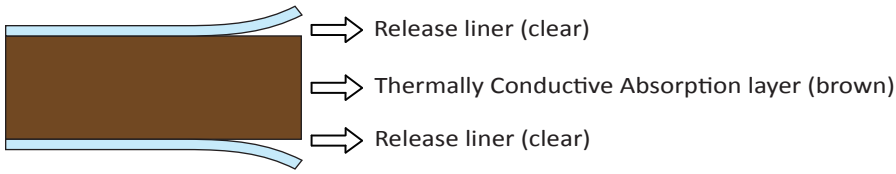


RoHS Compliant

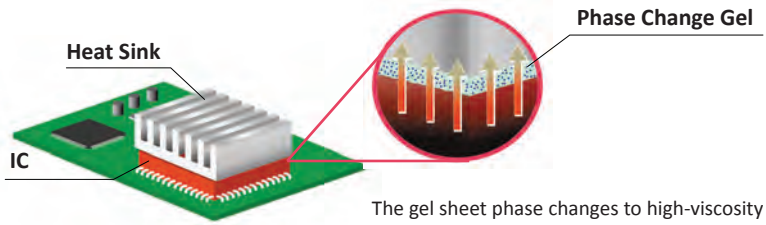
Thin + Dual function sheet for EMC and thermal management

- Multifunctional sheet for EMC and thermal management
- Helps with close contact to heating elements
- Very thin : 0.25mm; even thinner after compression
- Phase change at 50°C to secure close contact with heating elements

Cross-section view



Phase Change



The gel sheet phase changes to high-viscosity liquid from the heat of the IC and fills air gap, effectively transferring the heat to heat sink to lower the temperature and reduce EMC noise

Properties

Property	Test Method	CGE-0.25
Thickness (mm)	—	0.25 ±0.025
Standard sheet size (mm)	—	195 x 195 ±2.5
Phase Change Temperature (°C)	—	50
Volume Resistivity (Ω•cm)	JIS K 6911	1.0×10^{13}
Thermal Conductivity (W/m•K)	JIS R 2616 (Hot-wire method)	1.5
Permeability (100MHz)	—	7
Re-workability	—	No
Operating Temperature (°C)	—	-20 ~ 100
Color	—	Brown

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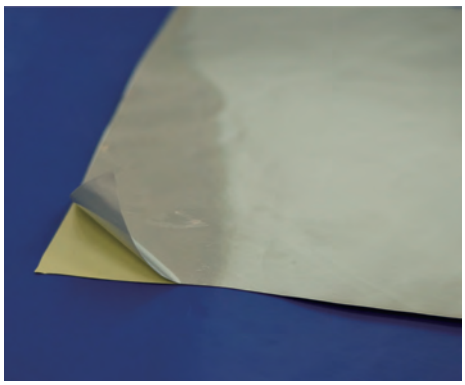
Heat Spreader
HSD Series

NEW



RoHS Compliant

Thin and flexible heat spreading sheet for superior thermal management

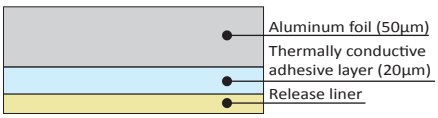
- Aluminum heat spreader material with excellent thermal conductivity (221 W/m·K)
- Spreads heat away from hot spots to cooler areas to prevent components from overheating
- Optional electrically insulating mylar (PET) layer can be applied upon request
- Ideal thermal solution for hot spots on space conscious applications such as mobile devices, tablets, routers, video streaming devices, etc.

Specification

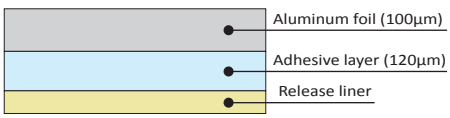
(The values below are not guaranteed)

Part Number	Standard	HSD-0.07	HSD-0.22	HSD-0.30
Total Thickness (mm)	—	0.07	0.22	0.30
Surface Thermal Conductivity (W/m·K)	JIS R 2616 (hot-wire method)	221 (Aluminum)		
Peel Strength (N/25mm)	JIS Z 0237:2009	>6	>16	>11
Flame Resistance	UL94	UL510 Equivalent	—	—
Operating Temperature (˚C)	—	-20~100		

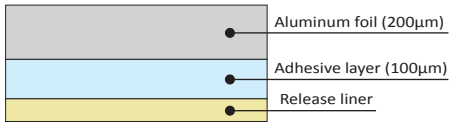
HSD-0.07



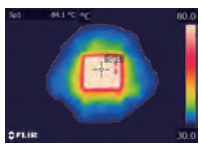
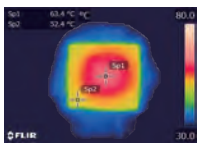
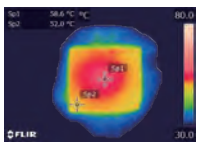
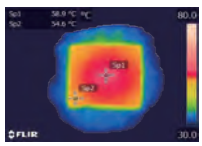
HSD-0.22



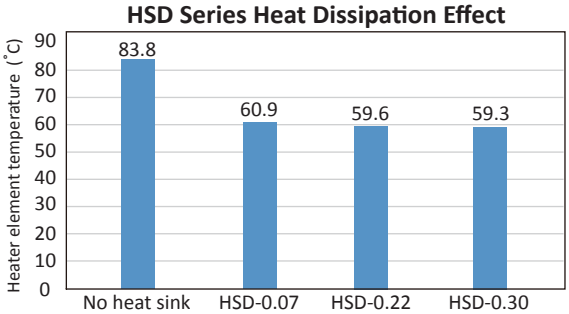
HSD-0.30



Heat dissipation effect (heat distribution)

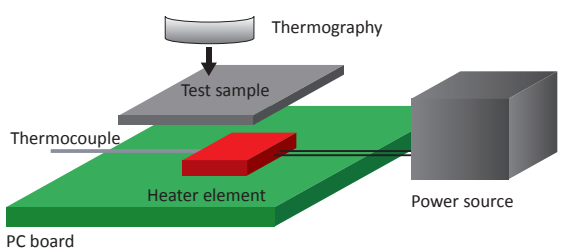
No heat sink	HSD-0.07	HSD-0.22	HSD-0.30
			
Test Sample ① ② ③	① PET film (30µm)	PET film (30µm)	PET film (30µm)
	② Aluminum foil (50µm)	Aluminum foil (100µm)	Aluminum foil (200µm)
	③ Thermally conductive adhesive layer (20µm)	Adhesive layer (120µm)	Adhesive layer (100µm)

HSD Series Heat Dissipation Effect



<Test Condition>
Heater element:□ 25mm (1.5W)
Test Sample: □ 50mm

Testing method



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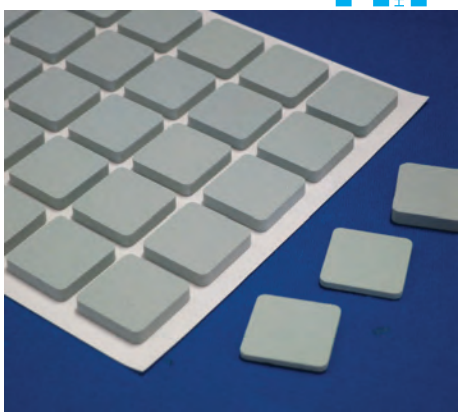
Ceramic Heat Sink
CECD Series

NEW

HF Halogen Free

RoHS Compliant



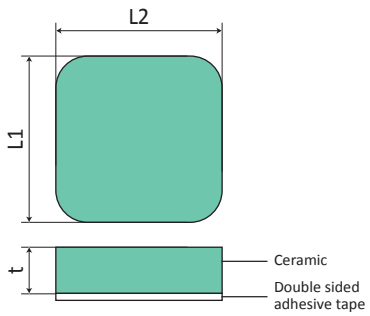
Porous Ceramic Heat Sink with excellent insulation

- Compared to traditional aluminum, the combination of the larger surface area provided by the porous structure and higher levels of thermal radiation amounts to superior heat dissipation.
- About 30% lighter than aluminum heat sinks
- There is no electromagnetic radiation from the heat sink unlike conventional metallic ones

Specification

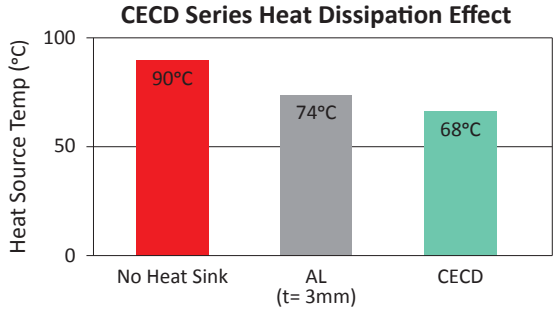
Part Number	Thickness	L1	L2
CECD-1.5-020020T (mm)	1.5	20	20
CECD-3.0-020020 (mm)	3.0	20	20
CECD-3.0-040040T (mm)	3.0	40	40

Property	CECD
Specific Gravity	1.95
Color	Green
Thermal Conductivity (W/m•K)	11.5
Volume Resistivity (Ω•cm)	≥10^8
Operating Temperature (°C)	-40 ~ 125



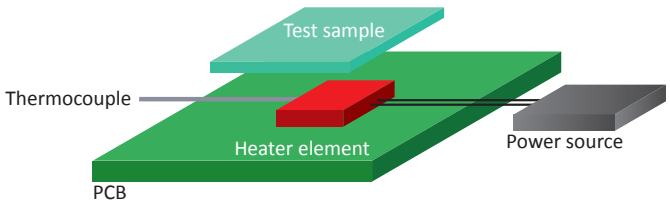
Effectiveness

CECD Series Heat Dissipation Effect



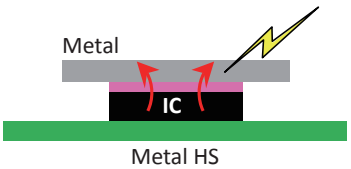
< Test Conditions >
Heat Source: □ 10mm (1.6W)
Heat Sink Size: □ 20mm (t= 3mm)

Testing method

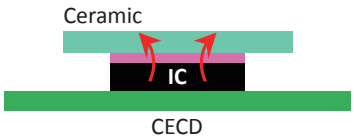


EMI issue with metalized heat sink

Metal heat sink becomes an antenna and recieves electronic noise.
Due to electrostatic coupling noise current shifts from IC and creates radiation noise



Due to superb insulation Ceramic heat sink has no effect by electrostatic coupling or EMC noise



KGS America
KITAGAWA INDUSTRIES America, Inc.
Tel:1-855-EMC-PART (1-855-362-7278) Email: sales@kgs-ind.com

Please request for detailed product specification data prior to purchase

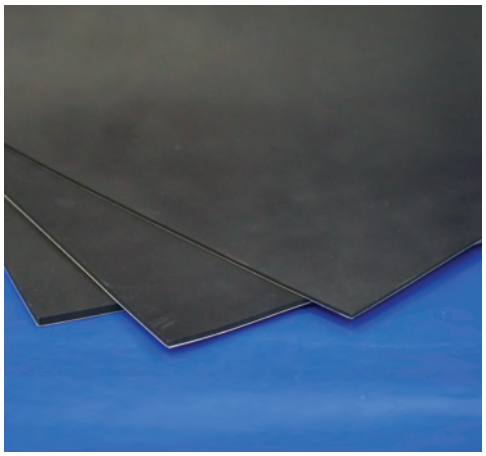
Volume resistivity stated on our EMI absorber flyer is meant for noise control parameters, where the absorber is considered a conductor, but not for insulation performance. Care should be taken when using absorbers. KITAGAWA INDUSTRIES America, Inc. makes no guarantees as to electrical resistivity values and accepts no liability due to short circuits where EMI absorbers are used directly on a PC Board or areas near high voltage such as for power. The products are designed for EMI noise reduction for electronics. This is not recommended for applications involving human life or extremely high accuracy. Prior to using the products in production, please verify their performance or adhesive strength of PSA for long term use. Avoid applying any external stress such as bending or high amounts of tension. Note when the absorber products are cut, bent, or pulled, there may be a possibility of creating cracks. For storage, keep products in a cool, dry, well-ventilated area at room temperature and avoid high temperatures, humidity, and direct sunlight.

Please contact the sales department at KITAGAWA INDUSTRIES America, Inc. for the use of our products prior to selecting the parts for your application.

Thermal Pad and Vibration Damper
CPAG Series

NEW

Silicone-Free



Silicone-Free, heat-conductive vibration damping sheet

RoHS Compliant

- Dual function thermal conductive and vibration damping material
- Suitable for applications with both thermal and vibration/shock issues
- Excellent vibration damping loss factor of 1.17
- Silicone-free material, so there is no siloxane outgassing
- Custom profiles and pressure sensitive adhesive tape can be applied upon request

Properties

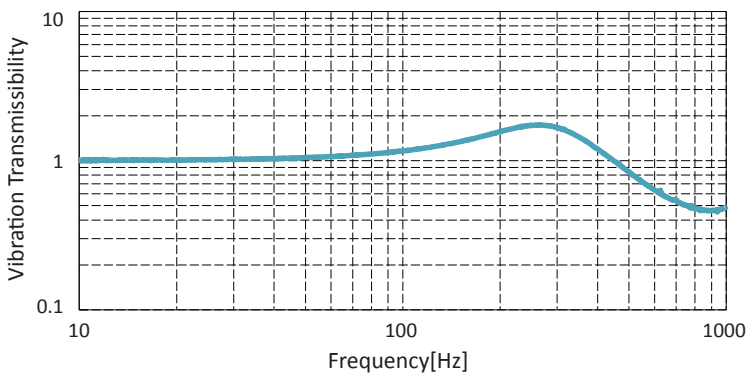
Property	CPAG	
Thickness (mm)	1.0, 2.0, 3.0, 4.0, 5.0	
Standard Sheet Size (mm)	350 x 350 no PSA, 340 x 340 with PSA	
Thermal Conductivity (W/m·K)	0.8	
Hardness (Durometer Type A*)	A 64	
Volume Resistivity (Ω·cm)	5.54×10^{11}	
Flame Retardant (UL94)	V-1 Equivalent: 2 mm thickness V-0 Equivalent: 3 ~ 5 mm thickness	
Tensile Strength (kgf/cm²)	23.7	
Elongation (%)	417	
Loss Factor	1.17	
Specific Gravity	1.67	
Tear Strength (kgf/cm²)	19.3	
Hardness Variation (JIS A)	+6	Heat Aging Test 120°C x 70h
Tensile Strength Change Rate (%)	+25	
Elongation Change Rate (%)	-25	
Operating Temperature (°C)	-10 ~ 100	
Color	Gray	

*In conformity to JIS K 6253

Cross-section view

Thermally conductive layer with acrylic material

Vibration Transmission



<Measurement condition>
Specimen size: 5mm x 5mm (t=3mm)
Load: 400g
Support point number: Four point mounting
Vibration Acceleration: 0.4G

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KITAGAWA INDUSTRIES GROUP

KITAGAWA INDUSTRIES GROUP is committed to supporting customers, and supply the most effective solutions for increased levels of EMC compliance required today by new international EMC regulations for computers, office equipment, telecommunication systems, local area networking, medical devices, digital imaging systems, automotive and aircraft equipment, as well as other unique applications.

KGS