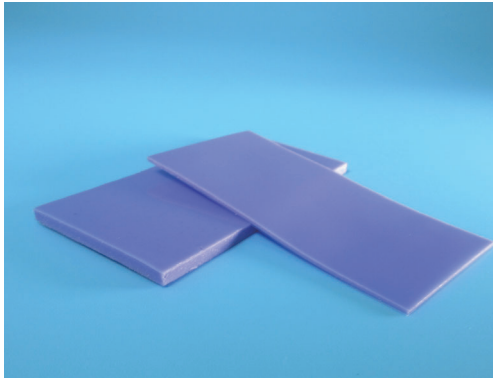


COOLPROVIDE™ / CPLK(sheet TIM※)

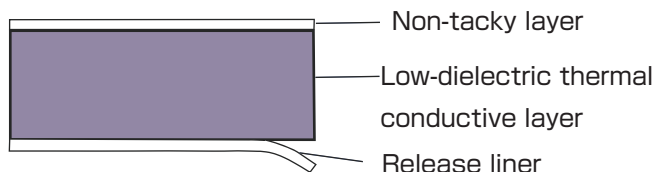
※ Thermal Interface Material



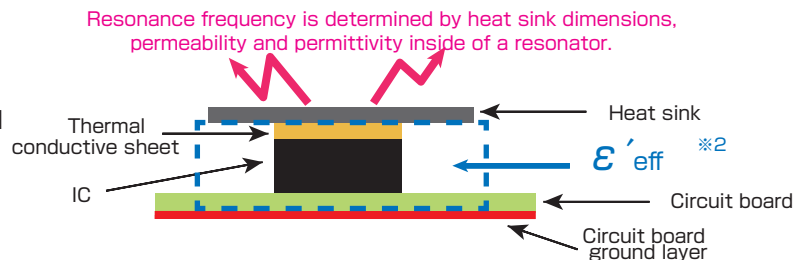
Noise suppression thermally conductive sheet

- Noise level is lowered at low-frequencies compared with conventional thermally conductive sheets.
- Low-dielectric thermally conductive sheet helps to reduce noise in GHz bands, which occurs by heat sink's resonance phenomena.
- Silicone-free type generates no siloxane gas and oil bleeding is reduced.

■ Cross section view



■ Resonance Phenomena



The smaller the real part of the permittivity is the lower the radiation is at frequencies except resonance.

■ Properties

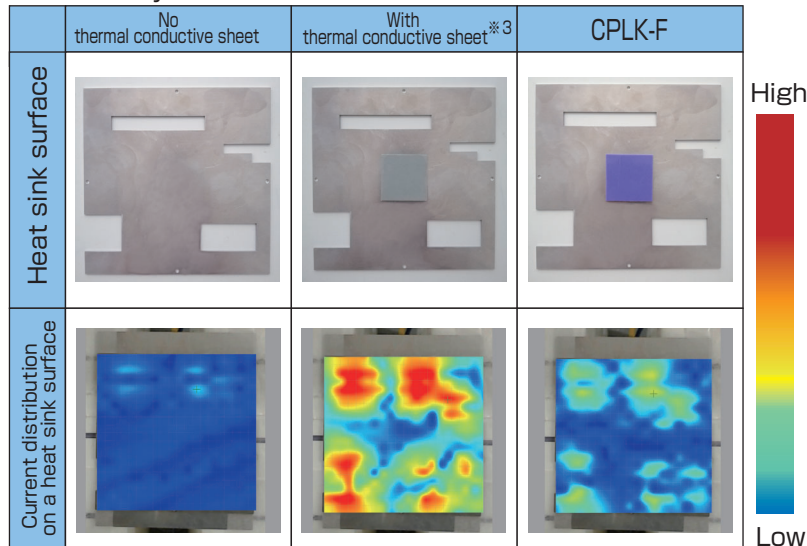
(The values below are not guaranteed.)

Test type	Unit	Standard	CPLK-F
Thermal Conductivity	W/m·K	JIS R 2616 (Hot-wire method)	2.0
		ISO22007-2 (Hot Disc method)	1.4
Color	—	—	Mauve
Thickness	mm	—	1.0/1.5/2.0
Specific Gravity	—	JIS Z 8807	2.0
Hardness	ASKER C	JIS K 7312	30
	Shore OO	ASTM D 2240	60
Tensile strength	MPa	JIS K 6251	0.39
Elongation rate	%	JIS K 6251	9.1
Volume Resistivity	Ω·cm	JIS K 6911 compliant	1.0×10 ¹¹
Breakdown voltage	kV/mm	JIS C 2110-1 compliant	6.6
Withstanding voltage	kV/mm	JIS C 2110-1 compliant	3.0
Relative permittivity	500MHz	Company standard	4.51
	1GHz	Company standard	4.46
Loss tangent	500MHz	Company standard	0.17
	1GHz	Company standard	0.13
Flammability	—	UL94	V-0 equivalent
Operating temp	°C	—	-40~125
Available max. dimension*1	mm	—	200×500

※1 Please contact us for available pcs/sheet.

■ Effects of Dielectric (measured)

1.0 GHz~1.2 GHz Magnetic field intensity in vicinity of heat sink



※2 ϵ'_{eff} : Equivalent relative permittivity between a heat sink and a ground layer of a circuit board

※3 Relative permittivity: $\epsilon' = 35$

- All specifications and characteristics shown herein are typical values, but are not guaranteed.
- All specifications and characteristics shown herein are subject to change without notice for improvements or changes in specification.
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KGS KITAGAWA INDUSTRIES CO., LTD.

KITAGAWA INDUSTRIES CO.,LTD.
 Tel: 81-587-34-3561 <http://www.kitagawa-ind.com>
KITAGAWA GmbH
 Tel: 49-6104-60009-0 <http://www.kitagawa.de>
KITAGAWA INDUSTRIES(TAIWAN)CO.,LTD.
 Tel: 886-2-2698-8833 <http://www.kgtw.com.tw>

KITAGAWA INDUSTRIES America, Inc.
 Tel: 1-408-971-2055 <http://www.kgs-ind.com>
KITAGAWA ELECTRONICS(SINGAPORE)PTE.LTD.
 Tel: 65-6560-6511 <http://www.kitagawa.com.sg>
KITAGAWA INDUSTRIES (H.K.) LIMITED
 Tel: 852-2612-1161 <http://www.kitagawa.com.hk>

SHANGHAI KITAGAWA INDUSTRIES CO.,LTD.
 Tel: 86-21-5865-2766
KITAGAWA ELECTRONICS(THAILAND)CO.,LTD.
 Tel: 66-35-350-201 <http://www.kitagawa-ind.com/thai/index.html>
KITAGAWA TECHNOLOGY(SHENZHEN)CO.,LTD.
 Tel: 86-0755-2396-3200