

Preliminary version Fujipoly Data Sheet

Sheet CF210A


Extremely Compressible Carbon Fiber Gap Filler Type

FEATURES

Highly Conformable, Ultra High Thermally conductive gap filler material

CF210A is Ultra high thermally conductive and non-flammable thermal interface gap filler material. Incorporating carbon fiber oriented in the thickness direction, This is very soft conforming thermal gap filler exhibits excellent thermal performance for high gap application between heat source and heat sink.

CONSTRUCTION

Series	Characteristics	Constructions
Sheet CF210A	Sheet CF210A features double sticky surfaces and ultra high Thermal Conductivity. at 21W/m-K based on ASTM D5470.	 Plain Type (CF210A-00)

TYPICAL PROPERTIES

Properties	unit	CF210A	Test method	Specimen
Physical Properties	Color	Black	Visual	-
	Hardness *1	Shore OO 58 (0 sec) 30 (10sec)	ASTM D2240	A
	Specific Gravity	2.21	JIS K6220	B
Electrical Properties	Volume Resistivity	< 100	JIS K7194	C
	Breakdown Voltage	< 100	ASTM D149	C
Thermal Properties	Thermal Conductivity *2	21	ASTM D5470	-
	Useful Temperature	-40 to +150 (-40 to +302)	-	-
	Low molecular Siloxane	wt% D ₃ to D ₂₀ 0.0100 or less	Gas Chromatography	-
	Flame Retardant	UL94 V-0 Equivalent	UL 94	-

• Specimens A: 25x50x12mmT • B: 2mmT • C: 110x110x2mmT

*1 : Measured hardness of peak value (0 sec) and the one after 10 sec.

*2 : Measured under 20% compression rate

THERMAL RESISTANCE

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Unit : K-cm²/W

Compression Ratio	1.5mmT	2.0mmT	2.5mmT
10%	0.8	1.0	1.2
20%	0.8	1.0	1.1
30%	0.8	1.0	1.1
40%	0.8	1.0	1.2
50%	0.9	1.1	1.2

Test Machine : TIMtester1400 by AnalysisTech

Test sample : DIA.33mm

COMPRESSION FORCE

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Unit : N/6.4cm²

Compression Ratio	1.5mmT	2.0mmT	2.5mmT
10%	64	50	37
20%	114	80	58
30%	149	102	74
40%	194	133	96
50%	258	178	130
Sustain 50%	19	18	16

Test method: by ASTM D575-91 for reference

- Specimen Area; DIA.28.6mm
- Platen Area; DIA. 28.6mm
- Sustain 50% at 1 minute later
- Velocity; 5.0mm/minute

TYPES AND CONFIGURATION

Series	Thickness	Sheet Size
Sheet CF210A	1.5mm ±0.20mm	130mmx130mm (Recommended Usable Size:120mmx120mm)
	2.0mm ±0.20mm	
	2.5mm ±0.20mm	

HANDLING NOTES

- It is recommended to compress the material with the equal ratio on the whole surface. Partial excessive stress may also result in excessive silicone oil exudation.

WARRANTY STATEMENT

- Properties of the products may be revised due to some changes for improving performance.
- Properties values in this document are not specification or guaranteed.
- This product is made of silicone, and silicone oil may exude from the product, and low molecular siloxane may vaporize depending on operating conditions.
- The product is designed, developed, and manufactured for general industrial use only. Never use for medical, surgical, and/or relating purposes. Never use for the purpose of implantation and/or other purposes by which a part of or whole product remains in human body.
- Before using, a safety must be evaluated and verified by the purchaser.
- Contents described in the document do not guarantee the performances and qualities required for the purchaser's specific purposes. The purchaser is responsible for pre-testing the product under the purchaser's specific conditions and for verifying the expected performances.
- Statements concerning possible or suggested uses made herein may not be relied upon, or be constructed, as a guaranty of no patent infringement.
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