

Graphene Thermal Conductive Film

TECHNICAL DATA SHEET

Product Overview

Taixing Zhifu Display Technology Co., Ltd. The goal of our Thermal Management Solutions series is to provide graphene thermal films to solve the most challenging thermal management challenges in electronics, telecommunications, medical, automotive and energy storage applications. It is flexible, high strength, controllable thickness and has excellent heat dissipation. This new type of thermal management product has very high application value in removing local hotspots, mitigating temperature changes, conducting heat and changing the direction of heat flow. It is an important application material for product heat dissipation solutions.

Typical Properties

NO.	Property	Unit	Index							
1	Product name	/	G-60	G-80	G-100	G-150	G-180	G-200	G-270	G-300
2	Exterior	/	No damage, no wrinkles, no scratches, no imprints, no bubbles							
3	Thickness	μm	60 \pm 5	80 \pm 8	100 \pm 10	150 \pm 10	180 \pm 15	200 \pm 15	270 \pm 15	300 \pm 15
4	Density	g/cm ³	>2	>2	>2	>1.95	>1.95	>1.95	>1.95	>1.95
5	Specific heat capacity	J/g·K	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
6	Thermal diffusivity	mm ² /s	>850	>800	>800	>750	>750	>700	>700	>700
7	Thermal conductivity	W/m·k	>1400	>1300	>1300	>1200	>1200	>1100	>1100	>1100
8	Tensile strength	Mpa	>20	>20	>20	>20	>20	>20	>20	>20
9	Flexural test (R5/180°)	Time	>10 ⁴	>10 ⁴	>10 ⁴	>10 ⁴	>10 ⁴	>10 ⁴	>10 ⁴	>10 ⁴
10	Conductivity	s/m	>10 ⁵	>10 ⁵	>10 ⁵	>10 ⁵	>10 ⁵	>10 ⁵	>10 ⁵	>10 ⁵
11	Hear-resistant temperature	°C	400	400	400	400	400	400	400	400
12	Environmental requirements		Comply with EU RoHS2.0 requierements							

Note: The specific heat capacity of 0.85J/g·K is a reference value.

Notes:

- (1) The size and thickness of the graphene thermal film can be customized, which has the advantages of thick film and hight heat flux.
- (2) Thermal conductivity is measured using ASTM E 1461 standard method.
- (3) According to customer requirements, it can be combined with tape, foam, cooper foil, heat insulation materials, etc. and die-cutting.
- (4) This product has excellent electromagnetic shielding effectiveness.

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