



# T68 Synthetic Graphite Sheets

Version 1.240120

## Synthetic Graphite Sheets

T68 is a high performing thermal interface material which is very thin, synthetically made from a highly oriented graphite polymer film and has excellent thermal properties in both the XY and the Z axis. T68 is ideal for providing thermal management in some of the most demanding of applications.

### Features

- Highly oriented pyrolytic graphite sheet with high thermal conductivity
- Ultra-thin
- High EMI shielding effect
- Excellent thermal conductivity: 1500 W/mK (4x as high as copper, 7x aluminium)
- Flexible and easy to cut or trim
- Low thermal resistance

### Applications

Mobile phone, Laptops, Se-top box, LED back light, PDP/LCD/OLED screens, Ultra bright LED, Digital camera, Digital video camera, NIC, Projector, Handheld device, etc.

### Properties

- ✓ REACH Compliant
- ✓ ROHS Compliant

Property		25	Unit	Test Method
Thickness		25µm	mm	Micrometer
		0.025	mm	
Thermal Conductivity	X-Y axis	1500	W/mK	AC calorimeter
	Z axis	5	W/mK	Laser flash
Color		Black	-	Visual
Thermal diffusivity		8.5	cm <sup>2</sup> /s	AC calorimeter
Density		2.1 (2100 kg/m <sup>3</sup> )	g/cm <sup>3</sup>	Archimedes law
Specific heat (at 50°C)		0.85 (850J/kgk)	(J/gk)	-
Bending test (R5/180°C)		10000	times	-
Electric conductivity		>13000	S/cm	JISK7194
Operating Temperature		-40 to +400	°C	AC calorimeter
Heat Capacity (SHC)		0.895	J/g-K	-

Type	T68	T68A	T68AP	T68APF
Processing Analysis	No processing	With insulating double-sided adhesive tape underneath (10µm/30µm)	1. Standard PET tape on the top (10µm/30µm) 2. Insulating 2-sided adhesive tape on the bottom (10µm/30µm)	1. Standard PET tape on the top (10µm/30µm) 2. Insulating 2-sided adhesive tape on the bottom (10µm/30µm) 3. Edge banding
Construction	Graphite Sheet	Graphite Sheet 2-sided Adhesive Tape Release Paper	PET Tape Graphite Sheet 2-sided Adhesive Tape Release Paper	PET Tape Graphite Sheet 2-sided Adhesive Tape Release Paper
Features	<ul style="list-style-type: none"> <li>Great thermal conductivity and softness of graphite</li> <li>Low thermal resistance</li> <li>Electrically conductive</li> </ul>	<ul style="list-style-type: none"> <li>Electrically insulating and adhesive on one side</li> <li>Great adhesion</li> <li>Breakdown voltage: 1KV</li> </ul>	<ul style="list-style-type: none"> <li>All surfaces are electrically isolating</li> <li>PET Tape: 1KV</li> <li>2-sided adhesive tape: 1KV</li> </ul>	<ul style="list-style-type: none"> <li>All surfaces are electrically isolating</li> <li>PET Tape: 1KV</li> <li>2-sided adhesive tape: 1KV</li> </ul>
Working Temperature	400°C	100°C	80-100°C	80-100°C
Overall Thickness	25µm	35µm / 55µm	45µm / 85µm	45µm / 85µm

T-Global Technology Limited  
1 & 2 Cosford Business Park, Central Park,  
Lutterworth, Leicestershire LE17 4QU U.K.

Tel: +44 (0)1455 553 510  
Email: sales@tglobaltechnology.com  
Web: www.tglobaltechnology.com  
VAT #: GB 116 662 714

**NOTICE:** The information contained herein is to the best of our knowledge true and accurate. However, since the varied conditions of potential use are beyond our control, all recommendations or suggestions are presented without guarantee or responsibility on our part and users should make their own test to determine the suitability of our products in any specific situation. This product is sold without warranty either expressed or implied, of fitness for a particular purpose or otherwise, except that this product shall be of standard quality, and except to the extent otherwise stated T-Global Technology Europe and North America's invoice, quotation, or order acknowledgment. We disclaim any and liability incurred in connection with the use of information contained herein, or otherwise. All risks of such are assumed by the user. Furthermore, nothing contained herein shall be construed as a recommendation to use any process or to manufacture or to use any product in conflict with existing future patents covering any product or material or its use.