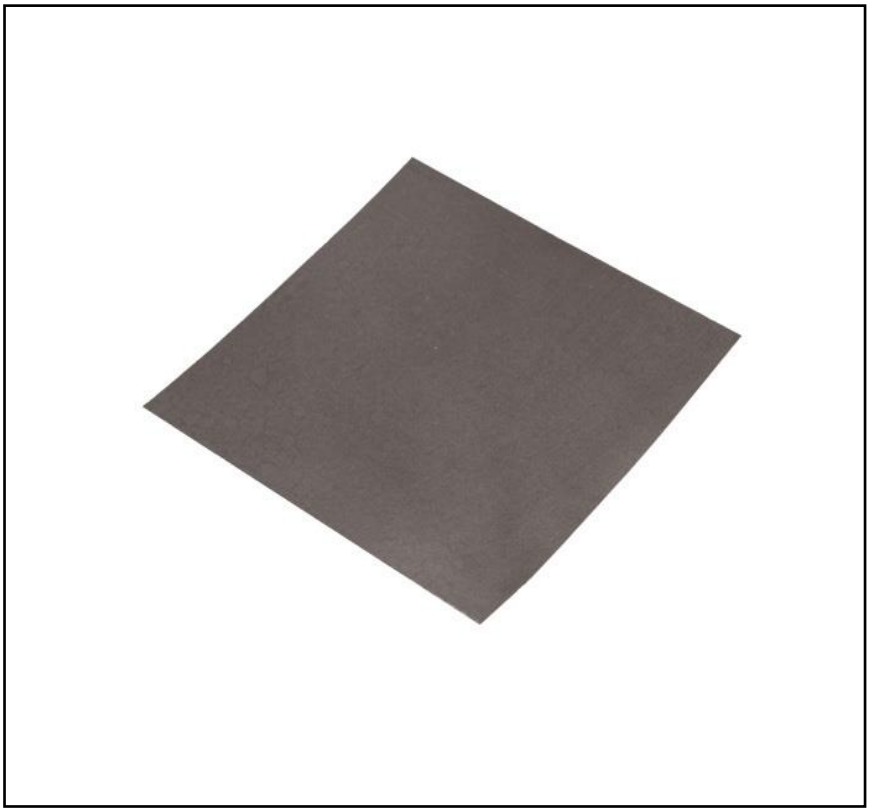
FEATURES

- Excellent thermal conductivity
- Highly adaptable to surface
  Lightweight
- Can be used in multi-layer
- RoHS compliant

RS PRO Crystalised Graphite Sheets



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

RS PRO crystalised graphite is a highly orientated graphite used for thermal management. This is a very thin, high thermal conductivity material, ideal for providing thermal management/heat-sinking in limited spaces or as a heat spreader at an interface level. This can be used to provide supplemental heat-sinking in addition to conventional means. The material is flexible and can be easily cut into various shapes.

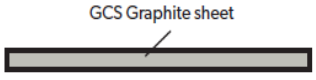
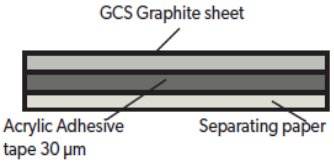
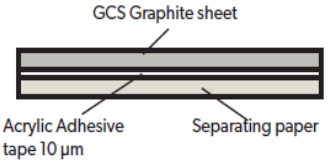
General Specifications

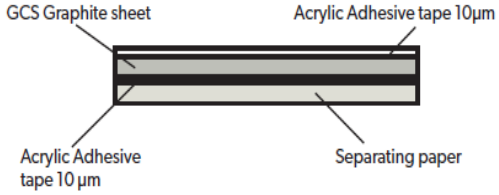
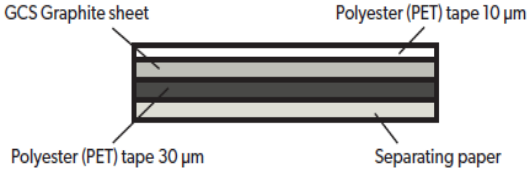
Material	Graphite
Self-Adhesive	Dependent on type / refer to table
Colour	Grey
Applications	Smart phones, mobile phones, DSC, DVC, Tablet, PCs and peripherals, LED Devices
Shelf Life	24 months

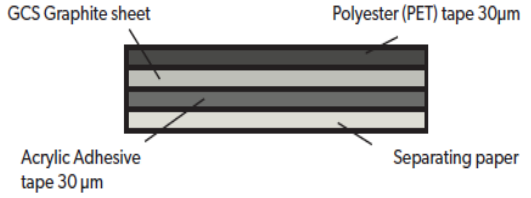
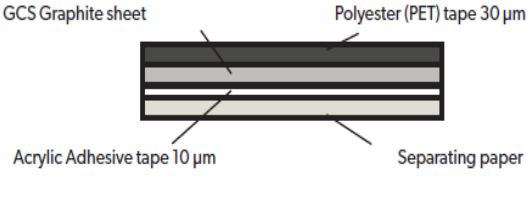
Specifications

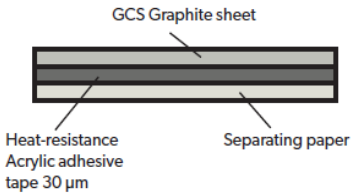
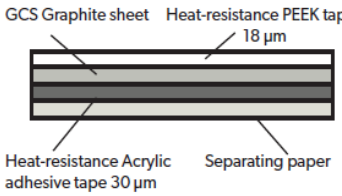
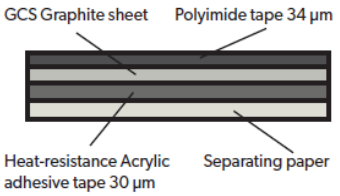
	25µm	**70µm**
Dimensions	90x115mm / 115x180mm	
Thickness	0.025mm	0.07mm
Length	115 / 180mm	
Width	90 / 115mm	
Thermal Conductivity	1600 W/m K	1000 W/m K
Density	1.9g/cm^3	1.2g/cm^3
Electrical Conductivity	18000 S/cm	10000 S/cm
Expansion Coefficient:		
In Plane	9×10$^-$7 1/K	
Through Thickness	3×10$^-$5 1/K	
Heat resistance*	400°C	

*Heat resistance value is for graphite only, adhesive, and coated versions are reduced in value, please check further data based on type.

Type		Graphite Only	Adhesive Type	
			A30	A10
Front face		-	-	-
Rear face		-	Insulative adhesion type 30 µm	Insulative adhesion type 30 µm
Structure				
Features		- High Thermal Conductivity - High Flexibility - Low Thermal Resistance - Avaliable up to 400 °C - Conductive Material	- With insulation material on one side - With strong adhesive tape for putting chassis - Withstanding Voltage: 2kV	- With insulation material on one side - Low thermal resistance comparison with A30 type - Withstanding Voltage: 1kV
Maximum continuous temperature (°C)		400	100	100
Standard size (mm)		115 × 180	90 × 115	90 × 115
Maximum size (mm)		180 × 230 (25 µm to)	115 × 180	115 × 180
25 µm	Part No.	**RS 245-7299/ RS 245-7300**	**RS 245-7303/ RS 245-7304**	-
	Thickness (µm)	25	55	-
70 µm	Part No.	**RS 2457314**	**RS 245-7317/ RS 245-7318**	**RS 245-7315/ RS 245-7316**
	Thickness (µm)	70	100	80

Type		Adhesive type	Insulation type
		A10A10	P10P30
Front face		Insulative adhesion type 10 µm	Polyester tape thin type 10 µm
Rear face		Insulative adhesion type 10 µm	Polyester tape standard type 30 µm
Structure			
Features		- With insulation material on both sides - Low thermal resistance comparison with A30 type	- With insulation material on both sides
Maximum continuous temperature (°C)		100	100
Standard size (mm)		90 x 115	90 x 115
Maximum size (mm)		115 x 180	115 x 180
25 µm	Part No.	**RS 245-7301/ RS 245-7302**	**RS 245-7308**
	Thickness (µm)	-	-
70 µm	Part No.	-	
	Thickness (µm)	-	-

Type		Laminated type (Insulation & Adhesive)	
		P30A30	P30A10
Front face		Polyester tape standard type 30 µm	Polyester tape standard type 30 µm
Rear face		Insulative adhesion type 30 µm	Insulated thin adhesion type 10 µm
Structure			
Features		- With insulation material on both sides - Withstanding Voltage PET tape: 4 kV Adhesive Tape: 2 kV	- With insulation material on both sides - Withstanding Voltage PET tape: 4 kV Adhesive Tape: 1 kV
Maximum continuous temperature (°C)		100	100
Standard size (mm)		90 x 115	90 x 115
Maximum size (mm)		115 x 180	115 x 180
25 µm	Part No.	**RS 245-7310**	**RS 245-7309**
	Thickness (µm)	85	65
70 µm	Part No.	**RS 245-7322**	**RS 245-7321**
	Thickness (µm)	130	110

Type		High heat resistance type		
		HA	PKHA	PIHA
Front face		-	High heat resistance and insulation adhesion type 18 µm	High heat resistance and insulation type 34 µm
Rear face		High heat resistance and insulation adhesion type 30 µm	High heat resistance and insulation adhesion type 30 µm	High heat resistance and insulation adhesion type 30 µm
Structure				
Features		- With high heat resistance and insulation tape on one side - Withstanding Voltage Adhesive tape: 2 kV	- With high heat resistance and insulation tape on both sides - Withstanding Voltage PEEK tape: 2 kV Adhesive tape 2 kV	- With high heat resistance and more insulated tape on both sides - Withstanding Voltage PI tape: 5 kV Adhesive tape: 2 kV
Maximum continuous temperature (°C)		150	150	150 (Polyimide: 180)
Standard size (mm)		90 x 115	90 x 115	90 x 115
Maximum size (mm)		115 x 180	115 x 180	115 x 180
25 µm	Part No.	**RS 245-7305/ RS 245-7306**	**RS 2457312**	**RS 245-7311**
	Thickness (µm)	55	73	89
70 µm	Part No.	**RS 245-7319/ RS 245-7320**	-	**RS 245-7323**
	Thickness (µm)	100	-	134

Safety Precautions and Handling Notes

RS Pro crystalised graphite may result in accidents when subjected to severe conditions of electrical, environmental, or mechanical stress beyond the specified conditions presented in the specification. Please follow the recommended safety precautions and handling notes.

- The graphite shall be used within the specified temperature range.
- Do not rub or touch the graphite with rough materials as it can cause scratching.
- Lines or folds in the graphite may affect the thermal conductivity.
- Use protective materials when handling the graphite.
- Do not touch the graphite while it is in use as it may be extremely hot.
- Do not use items with sharp edges as they may damage the graphite.
- The graphite does not function in accordance with specifications if overheated.
- Do not store under conditions such as salt water, direct sunlight or corrosive gases.
- Do not store near acid.