



GCSR-CGHPR GRAPHITE SHEETS

CRYSTALLISED GRAPHITE

FEATURES

GCSR 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. Various finishes and adhesion options are available to provide reduced long term contact resistance and various levels of electrical isolation.



Features

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

Recommended Applications

- Smart phones, mobile phones, DSC, DVC, Tablet PCs and peripherals, LED Devices
- Semiconductor manufacturing equipment (Sputtering, Dry etching, Steppers)
- Optical communications equipment

EXPLANATION OF PART NUMBERS

G	C	S	R	-	C	G	H	P	R	0	7	0
Product Code				Crystallised Graphite HPR Series						GCS Thickness		
										070	70 µm	
										085	85 µm	
										100	100 µm	

CHARACTERISTICS

Thickness (µm)		70 µm	85 µm	100 µm
Thermal conductivity W/(m·K)	X-Y	≥1700	≥1700	≥1500
	Z	15~20	15~20	15~20
Density (g/cm³)		≥2.1	≥2.1	≥1.9
Heat Capacity (J/g/K)		0.85	0.85	0.85
Working Temperature (°C)		-40~400	-40~400	-40~400
Thermal Transport Comparison (Thickness x X-Y Thermal Conductivity)		≥ 119000	≥ 144500	≥ 150000



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OPTIONS

Materials can be provided in sheet form with various standard thickness film laminations such as PET, PEEK and PI, utilising a variety of compatible pressure sensitive or high temperature adhesives.

SAFETY PRECAUTIONS AND HANDLING NOTES

GCSR crystallised 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.



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