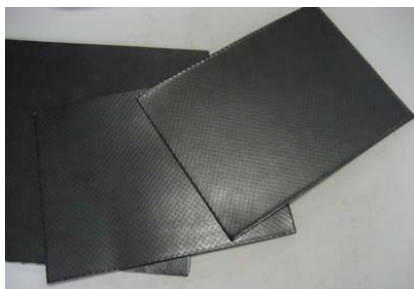


Flexible Graphite



This unique material is based on natural graphite flakes with well crystalline structures, which is through chemical treatment, expanding under high temperature and then rolling. Properties are highly anisotropic, particularly in respect to electrical and thermal conductivity. Graphite foils and sheets are available in different thicknesses. Graphite sheets are manufactured un-reinforced, impregnated or reinforced.

Specifications and technical data

Thickness (mm) Sheet	Width (mm)	Length (mm)	Density (g/cm ³)
0.127-3.0	4.2-1,500	≤910,000	0.7-1.5

Technical data

Item	Grade A	Grade B	Grade C	Grade D	Grade E
Carbon content (%)	≥99.5	≥99.2	≥99	98.5	≥98
Sulphur content (PPM)	≤200	≤500	≤1,000	≤1,200	≤1,500
Chlorine content (PPM)	≤20	≤30	≤40	≤45	≤50
Tolerance of density	±0.03	±0.03	±0.04	±0.05	±0.05
Tolerance of thickness (mm)	Thickness≤1.6mm, ±0.03; Thickness=1.6-3.0mm, ±0.05				
Compressibility (%)	≥4.5				
Tensile strength (Mpa)	≥40				
Recovery (%)	≥10				

Note: When the density of the graphite sheet is 1.0 g/cm³, the above product properties are available, and we can manufacture specially as per your requirements. Except above Grade, we can produce:

- Graphite sheet with nuclear class- special material for nuclear power
- Non-oxidizing graphite sheet-much higher working temperature
- Corrosion inhibitor graphite sheet-effective avoid the corrosion to spot on the sealing surface, the sealing is more reliable

Types of Graphite Sheets

- Graphite Sheets Micro-perforated/Other un-reinforced Graphite Sheets

The products of Graphite Sheets Micro-perforated are punched small holes in Graphite Sheets, which widely used in furnace to release gas. A wide range of normal Graphite Sheets un-reinforced

and Graphite Sheets Micro-perforated with specifications of 1.0–3.0x1500x1500 mm and 1.0-3.0x1000x1000 mm are available.

·Reinforced Graphite sheets

The product is formed by pressing mechanically or sticking from flexible graphite sheets together with metal plate. It has excellent sealing property for microscopic surface irregularities and strong compensation capacity for uneven sealing surface. It also has good compressibility, good resilience, small stress relaxation and long working life. It is mainly used for making cylinder gaskets of engines and punching into all kinds of sealing gaskets. Both sizes of 1.0–3.0x1500x1500 mm and 1.0-3.0x1000x1000 mm are available.

Item	Compressibility (%)	Recovery (%)
Reinforced Graphite Sheet with 0.1 mm AISI316 tanged inserted	30-40	≥15
Reinforced Graphite Sheet with 0.1 mm AISI304 tanged inserted	30-40	≥15
Reinforced Graphite Sheet with 0,05 mm AISI 316 no perforated	40-50	≥10
Reinforced Graphite Sheet with 0,05 mm AISI 304 no perforated	40-50	≥10
Reinforced Graphite Sheet with 0.2-0.25 mm Tin-plate tanged inserted	10-30	≥20
Reinforced Graphite Sheet with 0.2-0.25 mm ordinary carbon steel tanged inserted	10-30	≥20
Reinforced Graphite Sheet with metal mesh inserted	30-40	≥15
Reinforced Graphite Sheet with non-metallic fiber inserted	40-50	≥10
Reinforced Graphite Sheet with polyester film inserted	40-50	≥10
Reinforced Graphite Sheet with metal wire inserted	40-50	≥10

Main Applications

·Automotive

- a. Automotive seals
- b. Bipolar Plates for Fuel Cells
- c. Cab Air Conditioning for Trucks

·Electronics

- a. Electronics Thermal Management
- b. Electrostatic filter plate
- c. Cathodes and contacts

·Industrial seals

·Heat Treatment

- a. Heating elements and heat shields for high temperature
- b. Facings for hot pressing moulds
- c. Linings for melting crucibles and casting molds
- d. Release foils in glassworks and hot press
- e. Base material for vapor phase deposition of metal films
- f. Packaging and gaskets for hot gases, melts and heat-carrying oils

·Industrial furnace

·Other applications