



MATERIALS  
REFRACTORY  
MATERIALS

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- Graphite & PG Parts..... F 08

# Graphite & PG Parts

Graphite is a mineral of extremes. It is extremely soft, cleaves with very light pressure, and has a very low specific gravity. In contrast, it is extremely resistant to heat and nearly inert in contact with almost any other material. These extreme properties give it a wide range of uses in metallurgy and manufacturing.

## TYPES OF PRODUCTS

- Wire
- Powders
- Tube & rod
- Foil/Sheet/Plate
- Target
- Crucible
- Heater
- Composite parts
- All parts according specific drawings

## STANDARD SPECIFICATIONS

	GRAPHITE
Colour	Black
<b>MECHANICAL PROPERTIES</b>	
Hardness (Mohs)	0.1 - 1.5
Young Modulus (GPa)	4.8
Max use temperature (°C) in air	3650
Melting Point (°C)	-
Density (g/cm <sup>3</sup> )	1.6 - 1.75
Flexural strength, 3 points (MPa) at 20°C	50
Compressive strength (MPa) at 20°C	96
<b>ELECTRICAL PROPERTIES</b>	
Electrical resistivity (Ω.cm) at 20°C	7.10 <sup>-3</sup>
Dielectric strength (kV/mm)	-
<b>THERMAL PROPERTIES</b>	
Thermal conductivity (W/m <sup>1</sup> .K <sup>-1</sup> ) at 20°C	24
Linear expansion (x10 <sup>-6</sup> /K) 20°C to 1000°C	8.4

## POSSIBLE COATING:

- Pyrolytic
- SiC
- Si<sub>3</sub>N<sub>4</sub>



Vitreous Carbon crucible



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