

NATURAL GRAPHITE

Oxeco Technologies Pvt. Ltd. (Formerly Industrial Graphites) is engaged in the manufacture of high purity Natural Graphite powders and graphite-based products. Our track record of successful co-operative projects over 4 decades with various customers testifies to our ongoing commitment to provide products and services specifically suited to meet their individual needs. Rigorous control over raw materials and process conditions assure consistent quality. A large number of customers who were hitherto importing Graphite powder are now totally dependent on us for their entire requirements. Oxeco Technologies Pvt. Ltd. obtains its ore from various mines located in India. The unit has been able to correlate the properties of the Graphite from each individual mine to various end-users.

PROPERTIES

Graphite is an allotropic form of Carbon. Natural Graphite has a low coefficient of thermal expansion, low modulus of elasticity and high thermal conductivity. These combine to produce its excellent thermal shock resistance. After careful grade selection (depending on size and purity) for specific application, rupture due to thermal shock is highly unlikely.

At room temperature, Graphite will resist attack by many acids, alkalis and corrosive gases such as Chlorine, Helium and Hydroflouric acids (at high temperatures, a reducing or neutral atmosphere is

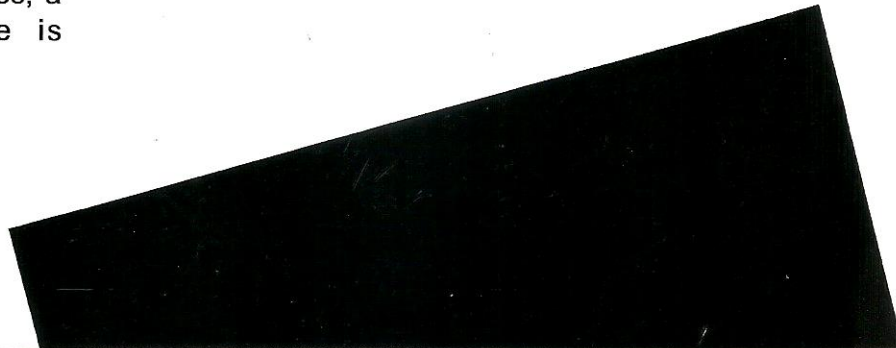
The electrical conductivity of graphite increases from room temperature to 500°C and then decreases till about 3500°C. As the temperature increase, the electrical conductivity becomes superior to that of more conductive metals such as Copper and Aluminium.

Graphite is non-hygroscopic and an excellent extinguishing agent. It does not combine with Oxygen below 600°C.

In absence of Oxygen or oxidising influences, it is capable of enduring temperatures above 3500°C after which it undergoes sublimation. Graphite crystallises in a hexagon system. Data obtained from X-ray defraction studies indicate that the length of the hexagonal prism is 6.78A° units. The distance between atoms in adjacent basal planes is 3.35 A° units. The orientation of the crystals determines the structure (flaky, crystalline or amorphous). Broadly speaking, the various grades manufactured are as follows.

STRUCTURE	: Amorphous or Crystalline or Flakes.
Graphite Carbon	: 85%, 87%, 90%, 92%, 94%, 96%, 98%, 99%, 99.5% and 99.99%
Particle Sizes	: + 40, +80, -100, -200, -325 mesh. 30 microns, 20 microns, 5 microns

Depending upon the customer's requirement, the correct purity and particle size distribution can be manufactured.



APPLICATIONS

- Graphite Crucibles • Foundry Coatings
- Graphite Grease • Colloidal Graphite Lubricants
 - Graphite Heat Conductive Paints
- Graphite Electrically Conductive Paints
 - Arc Welding Electrodes
- Cinema Arc Carbons & Search Light Carbons
 - Anti Seize compounds • Brake Linings
- Filler Material for Rubber & Plastic Industries
- Ammunition • Dry Battery & Nickel Cadmium Cells
 - Mechanical Packing, Clutch facing etc.
 - Automotive Piston Coatings
 - Electronic Component Manufacturers
 - Carbon Blocks & Bricks • Catalysts
 - Sintered Metal Components
- Expandable Flakes • Pencils • Nuclear Reactors
 - Fire-proof coating • Sound Insulators.

PACKING

The graphite powders are normally packed in 25 or 50 kgs polythene-lined gunny/paper bags.

The high purity powders are packed in fiber/metal drums.



OXEECO TECHNOLOGIES PVT. LTD.