

## 1. Flake Graphite and Graphene

- 1.1 Natural flake graphite as flakes and powders with all grain sizes and purities
- 1.2 Extremely large flakes for the preparation of graphene
- 1.3 Spherical or “potato shape” graphite with high bulk density and highest purity of 99.95 %
- 1.4 Micronised Powders down to particle sizes of about 50 % < 2 µm (traditional testing)
- 1.5 Anticorrosive graphene paint and plates great impact strength and extremely long life time

## 2. Expandable Graphite

- 2.1 Expandable graphite for all applications and special types for special applications
- 2.2 Expandable graphite for flame retarding alternatively with low or high activation temperature
- 2.3 Expandable graphite with extremely large expansion volume and high expansion pressure
- 2.4 Special expandable graphite types low sulphur content, low activation temperatures, powders
- 2.5 Expanded and slightly compressed expandable graphite light and ductile powder

## 3. Graphite Foil, Graphite Sheets and Powders

- 3.1 Graphite Foil for all applications without and with metal reinforcement, glued or interlocked
- 3.2 Special Graphite Foil no bubbles when suddenly exposed to great heat, low sulphur, etc.
- 3.3 Graphite Foil with extremely low density for conducting of heat
- 3.4 Graphite foil with high resistance against oxidation and little loss of weight when exposed to low and middle temperatures
- 3.5 Seals, gaskets, and graphite packing made of graphite foil and braided graphite cord
- 3.6 Powders made of milled rests of clean graphite foil light and relatively cheap powder in different grain sizes for conducting heat and electricity

## 4. Artificial Graphite

- 4.1 Electrodes for several applications in different quality
- 4.2 Blocks and Profiles there are many different graphite qualities for many applications
- 4.3 Graphite Tiles and Linings for plants as a protection against chemical attack
- 4.4 Special Piece Parts made of artificial graphite for special applications
- 4.5 Powders made of Clean Scrap of Electrodes for steel works for brake linings, plastics
- 4.6 Micronised Artificial Graphite Powder for special applications

## 5. Special Types of Carbon

- 5.1 Special types of amorphous graphite, coke, carbon black, and coal for special applications
- 5.2 Graphite Fibres and Felt in different quality

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## **6. Graphite Lab Service for Graphite Producers, Dealers, and Consumers**

### **Examination and evaluation of graphite grades and graphite ores**

#### **Development and improvement of graphite processing at lab scale and at existing plants:**

- **Beneficiation** many flotation plants destroy the flakes
- **High purification by flotation process** to achieve high carbon contents by flotation
- **High purification of graphite** by various cold and hot chemical methods
- **Improvements for drying, screening, packing, and dust collecting**
- **Micronising of graphite** dry and in liquids
- **Expandable graphite** develop and identify best suitable types for special applications

**Development of new technologies** for the production and application of graphite

**Improvement of working and environmental conditions** for processing of graphite

## **7. Consulting Service for Graphite Producers, Dealers and Consumers**

### **Graphite producers**

- **Prospecting, lab work, calculating and evaluating of graphite ore deposits**
- **Design and layout of graphite mines and processing plants**
- **To find out best possible applications for different types of graphite**
- **Marketing studies for graphite with special properties**
- **Project studies, project planning, support, and implementation**
- **Special projects for the improvement of operating plants**
- **Special projects for high purification and micronising of graphite powders**
- **Special projects for expandable graphite and graphite foil**
- **To prevent damage of flakes, to achieve high utilisation of processing capacity**
- **To achieve little wear of equipment, loss of graphite, and low cost of operation**
- **Effective control systems for production, cost, and quality**
- **Assistance for organisation and training, motivation and cost saving programs**

### **Graphite Dealers and Graphite Consumers**

- **Lab work and evaluation of graphite types and grades**
- **Search for suitable applications for different types of graphite**
- **Search for suitable types of graphite for special applications**