

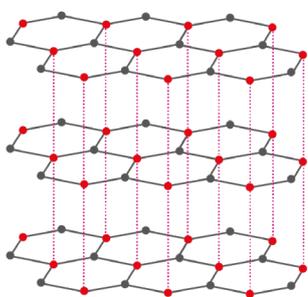
EXPANDABLE GRAPHITE.

BLACK MAGIC.

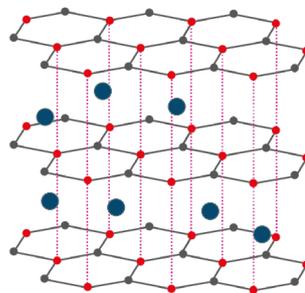
Due to the layered structure of graphite, atoms or small molecules can be intercalated between the carbon layers. During this process, a so-called expandable graphite salt or GIC (Graphite Intercalation Compound) is produced. Outstanding expandable graphite grades have a high proportion of intercalated layers. Usually sulphur or nitrogen compounds are used as intercalation agents.

Under the effect of heat the layers separate like an accordion and the graphite flakes expand. Depending upon the grade of material, expansion can commence at temperatures as low as 180°C and can occur suddenly and rapidly. In the case of free expansion, the final volume can be several hundred times greater than the initial volume.

The properties of expandable graphite, i.e. initial expansion temperature and degree of expansion, are primarily defined by the quality of intercalation (proportion of intercalated layers) and by the intercalation agent.

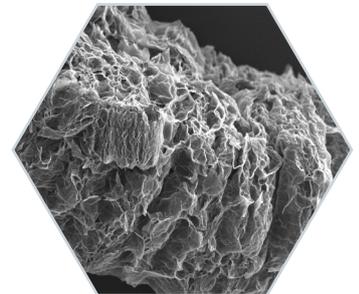


Natural graphite flake



Graphite layers with intercalated molecules

● Sulphuric acid



Expanded graphite

INTELLIGENCE
IN
GRAPHITE

- Graphit Kropfmühl GmbH is an exclusive Expandable Graphite manufacturer in Europe
- Environmental friendly production - high level of automation
- No chromium or lead used in the production process
- High flexibility when designing new grades due to our flake resources (graphite mines)
- Possibility to adjust all parameters according to customer needs

ADVANTAGES

- Suitable for a wide range of applications
- Excellent flame retardant effect with low material use
- Reduces fume formation
- Free of heavy metals
- Non-polluting
- Halogen-free

We deliver graphite tailored to your demands and in different types of packaging. Quality is controlled according to a detailed quality control plan. The typical forms of packaging are paper bags, shrink wrapped on euro-pallets and big bags. Other types of packaging and transport can be arranged on request.

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EXPANSION PROCESS

