**GRAPHITE FOR FRICTION**

Graphite is a central material in the friction industry, especially in the production of brake and clutch linings. With its lubricating properties, graphite modulates the braking effect of friction linings and essentially contributes to braking comfort and to noise reduction. The outstanding thermal conductivity properties of graphite also play an important role in friction linings. The main fields of application are the automotive sector and rail range (e.g. brake and clutch linings) as well as multilayered applications in the industry (e.g. sinter surfaces).

**Specifications**

Due to the following versatile properties, graphite is used willingly in the friction industry:
- Friction coefficient: increasing graphite content brings down the friction coefficient
- Thermal conductivity: reduction of “Hot Spots”
- Lubricating properties: filling and smoothing of unevenness
- Plastic formability: balancing of unevenness on coat and disc

The main objective of using graphite is to transform kinetic energy into heat in brake linings and for torque transition in clutch linings. The different compositions in the respective brake lining must be mixed homogeneously. The graphite film, applied by the friction, will be removed by the rough petroleum coke. This interaction then leads to the appropriate braking effect.

**Advantages of graphite in friction**

- Reduction of braking noise and wear
- Encouragement of braking comfort
- Improvement of friction coefficient
- Parting agent in welding process
- Resistance to oxidation and cyclic temperature stress
Graphit Kropfmühl / AMG Mining AG has more than 140 years of tradition and expertise in graphite. With our permanent will to create, market proximity and absolute customer orientation we have become a trend-setting graphite refiner. On the basis of state-of-the-art, quality-conscious high-technology and in an intensive dialogue with customers and partners, we develop high-quality special products.

In order to secure the supply of raw materials we hold shares in mines located in Europe, Africa and Asia. Our leading position as an internationally operating, listed graphite specialist is both motivation and obligation. Extensive research and development work guarantees a permanent optimisation of our product range and allows us to fulfil specific customer wishes.

The GK Group of companies is certified according to ISO 9001.