



RAW MATERIALS FOR DECARBONISATION

Graphite

What is graphite?

Graphite is a form of carbon that occurs as black to steel grey, lustrous flaky aggregates, disseminated in metamorphic rocks or as veins with a fibrous or foliated texture. It is considered by the EU to be a 'critical raw material'.

How is graphite used?

It has varied industrial applications, including in electronics, lubrication, metallurgy and steel production.

In the UK graphite is used in aerospace applications, nuclear power generation and associated industries, in the petrochemical and automotive sectors, and for glass and steel manufacturing.

How is graphite formed?

Graphite is common component of metasedimentary rocks and all graphite deposits are formed from metamorphism, with geological conditions affecting the type of ore.

Does the UK import graphite?

The UK is a small net importer of natural graphite, with total imports of about 38 tonnes worth £3.4 million in 2017.

Where in the UK does graphite occur?

Graphite is a widespread constituent of metamorphic rocks in the UK, particularly in Scotland. However, there are very few significant graphite occurrences in the UK, and even the historically important deposits, are unlikely to be of current economic interest due to their small size and accessibility.



Figure 1 Graphite. J Smith collection. Craigman Black-lead Mine. P906690.