



COKING COAL

Coking Coal (also known as Metallurgical Coal) is used exclusively in the manufacture of over 70% of the world's steel and a very different product to thermal coal which is used to generate power. More than 1.2 billion tonnes of coking coal is used in global steel production around the world every year.

Steel is crucial to our everyday lives and essential to develop renewable power sources (wind turbines etc).

The key characteristic of coking coal is its ability to form a cake when heated in the absence of air (caking properties) – this is the process of making coke.

Modern steel plants include extensive gas treatment and capture to significantly reduce emissions.

The government is committed to maintaining a UK steel industry.

West Cumbria coals are known to be high volatile, hard coking coal with the following characteristics;

- ▶ Very low ash levels – thus reduced waste material
- ▶ Very low phosphorous – a major positive for steel strength
- ▶ Very good coke characteristics – it performs well in the furnace
- ▶ Moderate sulphur (around 1%) – reduced by coal processing

Did you know?

EVERY PART OF A WIND TURBINE DEPENDS ON STEEL

GENERATOR

65% STEEL
35% COPPER

BLADES

STEEL HOLDS THE BLADES
IN PLACE AS THEY TURN

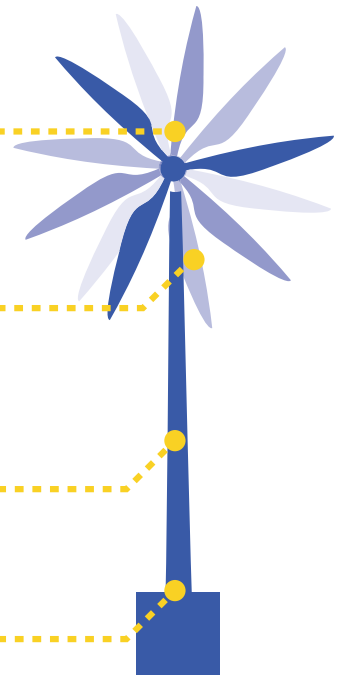
TOWER

90% STEEL
TUBULAR STEEL TOWERS

FOUNDATION

MADE FROM STEEL
RE-INFORCED CONCRETE

SOURCES: MCA COAL - THE HARD FACTS.
WORLD STEEL ASSOCIATION



GLOBAL STEEL
PRODUCTION IS
DEPENDANT ON

COAL



70%

OF STEEL IS MADE FROM COAL

1 MW OF WIND TURBINE
CAPACITY

REQUIRES

220 TONNES
OF COAL

WHICH EQUATES TO

= **220 CARS**

* STEEL IS MADE THROUGH A PROCESS OF
MIXING IRON ORE WITH COKING COAL

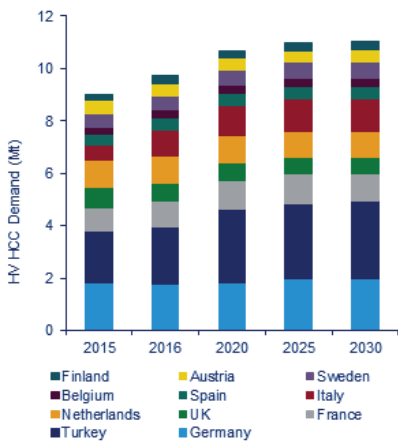


The quality of the coking coal our mine is able to produce will be very important as the higher the quality, the greater the demand from steel producers looking to maximise their productivity.

Exploratory tests to date lead us to believe that WCM can extract high quality 'hard' coking coal, which makes it most desirable to the steel manufacturing industry.

WCM is focussed upon supplying a premium coking coal product into the UK and European Steel Industry.

There has been a lot of speculation regarding the long term future of steel manufacturing, demand and the price of coking coal and other input commodities. WCM have commissioned independent studies to review and provide commentary on the market



The European steel production is forecast to recover and increase steadily over the next 10 years.

Germany is the largest steel producing country, with Turkey actively increasing their hot metal capacity. A forecast of the market size for WCM coal is shown.



770KG OF COAL
IS USED TO PRODUCE **ONE TONNE OF CRUDE STEEL**

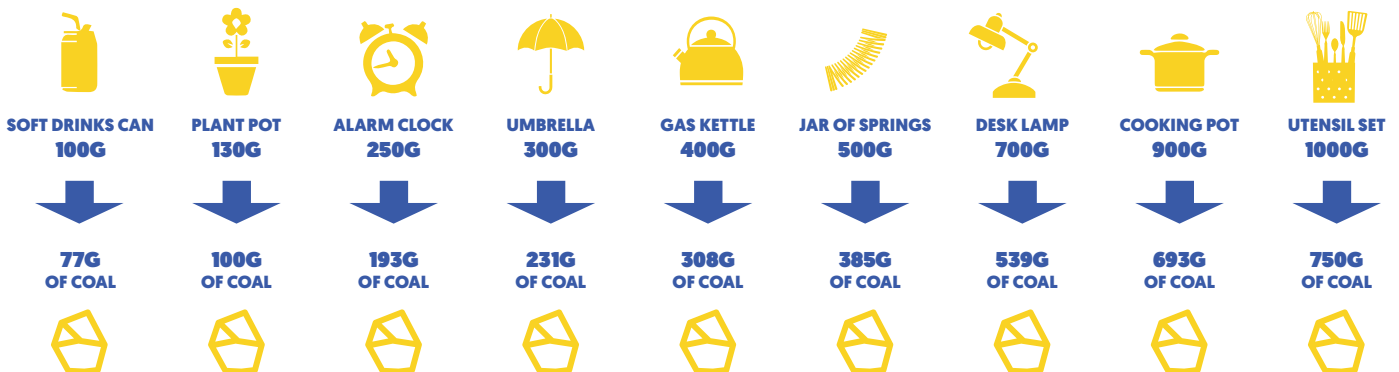


250t
250 TONNES OF COKING COAL ARE REQUIRED TO BUILD AN OFFSHORE WIND TURBINE & 150 TONNES TO BUILD AN ONSHORE TURBINE

Almost everything needs coking coal

It's surprising just how many

The manufacture of a small item like a pack of four soft drink cans requires 77g of coking coal, while a car needs more than a tonne. The gas bottle on the floor weighs around 18kg, and requires around 13.8kg of coking coal to create it.



West Cumbria Mining Ltd

Haig Museum
Solway Rd, Kells,
Whitehaven, Cumbria
CA28 9BG

4th Floor, Oakfield House
35 Perrymount Rd
Haywards Heath
RH16 3BW

www.westcumbriamining.com
info@westcumbriamining.com
01946 848333

