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WHITE OVER BLACK WHITE COAL-FINER THAN BLACK COAL

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Abstract
White coal is a form of bio fuel produced by agriculture or forestry waste. It differs from charcoal and black coal and produces more heat than green wood. White coal is a biomass briquette which replaces fossil fuels such as lignite, coal, gas and so on. It is called white coal because it does not create any type of pollution when it's burning.

Introduction

Black Coal:

It is a black sedimentary rock. It usually occurs in coal beds found in coal mines. Coal comprises of carbon, hydrogen, oxygen, sulphur etc... when dead plants and animals decay and convert into peat which in turn turns lignite, sub-bituminous coal after that bituminous coal lastly anthracite. Hence, coal is a fossil fuel. It takes place due to geological process and takes millions of years to form. Coal is extracted by mining.

White Coal:

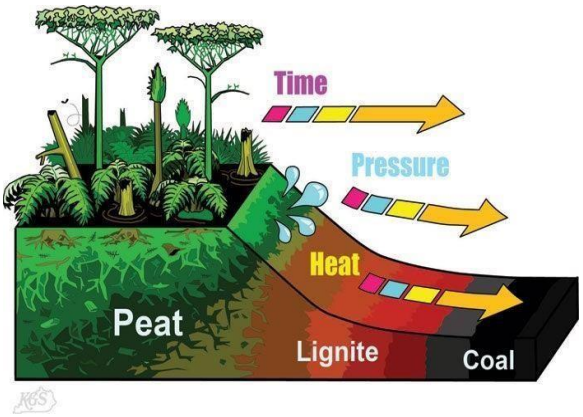
It is a form of fuel produced by drying chopped wood wastes obtained from carpenter shops and Saw mills over fire. It is different from charcoal and coal which has high carbon content in them White coal was first used in England to melt lead ore from mid-sixteens to late seventeen century. It produces more heat than green wood but less than charcoal and thus prevents lead evaporating. White coal was produced in distinctive circular pits with a channel, known as Q-pits. It produces more heat than green wood but less than charcoal. The Production of White Coal contains agricultural waste or biomass is gathered and compressed under large pressure into briquette press which is converted into bio fuel. If the raw material size is small then it is directly fed into the briquetting press machine – if large it must be crushed first. This whole process is simple and Eco friendly.

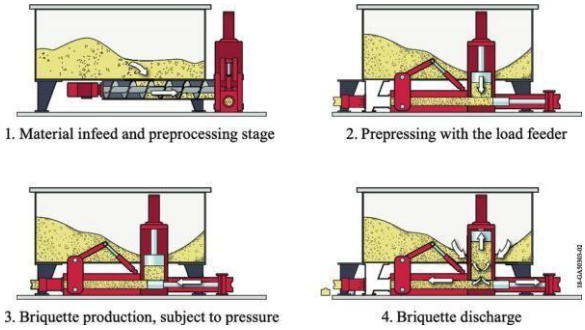
Why White Coal?

Raw material is abundantly available in the form of agricultural waste and residue can be easily procured. It is cheaper than conventional coal. Performance of white coal is better than black coal in many aspects like better combustion characteristic, less ash content, high volatile matter & less sulphur. White coal is safer than black coal. Hefty amount of white coal in the form of sugarcane bagasse, maize stalk, and cotton fibre and rice husk is available. It's near the end user and transportation cost is reduced. Process of converting agricultural waste into White coal is also pollution free.

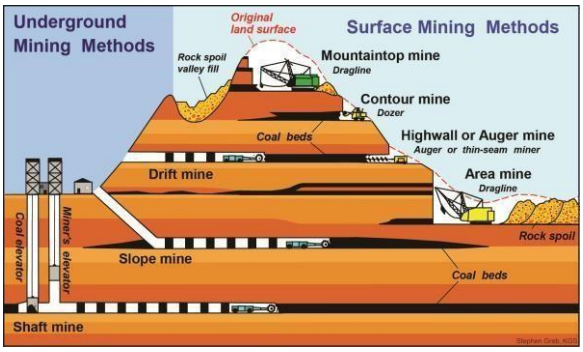
India is becoming a major manufacturer and exporter of white coal. White coal manufacturing capacity is increasing rapidly in the state of Gujarat, Maharashtra, Tamil Nadu and Rajasthan.

HOW IS COAL FORMED?

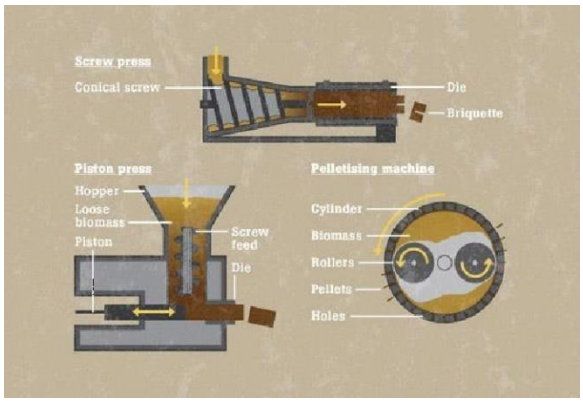




HOW IS COAL EXTRACTED?



HOW IS WHITE COAL SYNTHESIZED?



Why WHITE OVER BLACK?

Serial No.	Parameters	White coal	Black coal
1	Sustainability	High	Low
2	Cost efficiency	High	Low
3	Pollution content	Low	High
4	Combustibility	High	Low
5	Calorific value	High	Low
6	Ash content	Low	High
7	Labour cost	Low	High
8	Availability	High	Low
9	Dependency on other fuels	Low	High
10	Storage specification	Low	High

PRACTICAL APPROACH TOWARDS WHITE COAL

Bio-coal or widely termed as white Coal is becoming the need of an hour. With the technology getting superior the concern for the environment & mankind is getting inferior. The increase in usage of fossil fuels is now resulting in the degradation of air quality. Black coal is not readily available everywhere and causes pollution too but on the other hand white coal is environment friendly and is the best alternative for black coal.

White Coal is obtained from the following: -

- Groundnut Shells
- Cotton hulls
- Castor Seed Shells
- Forest leaves, wood chips & shavings
- Sugarcane bagasse
- Rice husks
- Paddy Straw
- Mustard Waste
- Coffee Husks
- Sunflower Wastes
- Maize Stalks
- Bajra Cobs and wheat stalks

Briquettes are formed from the processing of the above given materials which is further used in the paper mills, textile industry, etc.

White coal plants are finding wide use in north side of India.

APPLICATIONS:

It can be a replacing agent for the following;

- Diesel
- Kerosene
- Coal
- Firewood
- Lignite
- Lamination Industries
- Leather industries
- Solvent extraction plants
- Brick-making units

CONCLUSION:

Briquette bio-coal or white coal is a green and clean replacement for black coal. It is a very economical method through which farmers can earn a little extra from the waste their business produces. It is a right step to a bright and sustainable future. Therefore, white coal should be preferred over black coal.

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