



PRODUCTS

Gilsonite

Gilsonite was formed millions of years ago by a geological phenomenon. At that time, a quasi-oil reservoir was created to cover large cracks in the earth's surface, which hardened over time and became the resinous rock that is being mined today. Gilsonite is a naturally occurring form of asphaltite and a type solid hydrocarbon bitumen.



This product is a natural hydrocarbon resin with many properties mainly used in asphalt and even ink and printing industry. It is utilized in more than 160 products, from drilling cement to chemical products, casting sand additives and a wide range of chemical products.



Gilsonite is natural, safe and non-toxic resin rock made from a combination of hydrocarbons. It is rich in nitrogen and beta-carotene with different applications in various industries as an efficient, versatile, and cost-effective additive.



Gilsonite significant health specifications compared to synthetic products:

- **Non-toxic (unlike coal and fly ash)**
- **Non-carcinogenic**



- Non-genetic mutant

- No strict safety precaution required

- Complying with the Mexican EPA standard of deep-water drilling operations

Gilsonite can be dissolved in most petroleum products as well as different solvents. The high percentage of solubility in solvents indicates its high quality and consequently the percentage of solubility and combination with hydrocarbons and resins.

Normally, the lower the ash content, the higher the solubility; however, it depends more on the type and time. The ash can be filtered by dissolving, and make up to 99% solubility after drying.



Currently, Rash Company can produce three types of gilsonite products in different sizes:

1. Gilsonite micronized powder with a diameter of 80 to 400 mesh and ash between 0 to 25%
2. Clods gilsonite with 0 to 25% ash percentage.
3. Granulated gilsonite with the diameter of 30 to 40 mesh.

Producing gilsonite powder is very simple:
First, the extracted gilsonite is transferred to the factory. Then, at the factory production line, the clods are crushed by special machines. After that, the granulation process is performed using special screens. Finally, the gilsonite powder, is packaged and marketed.



Gilsonite application

Numerous uses of gilsonite have led to many applications from natural bitumen to its powder



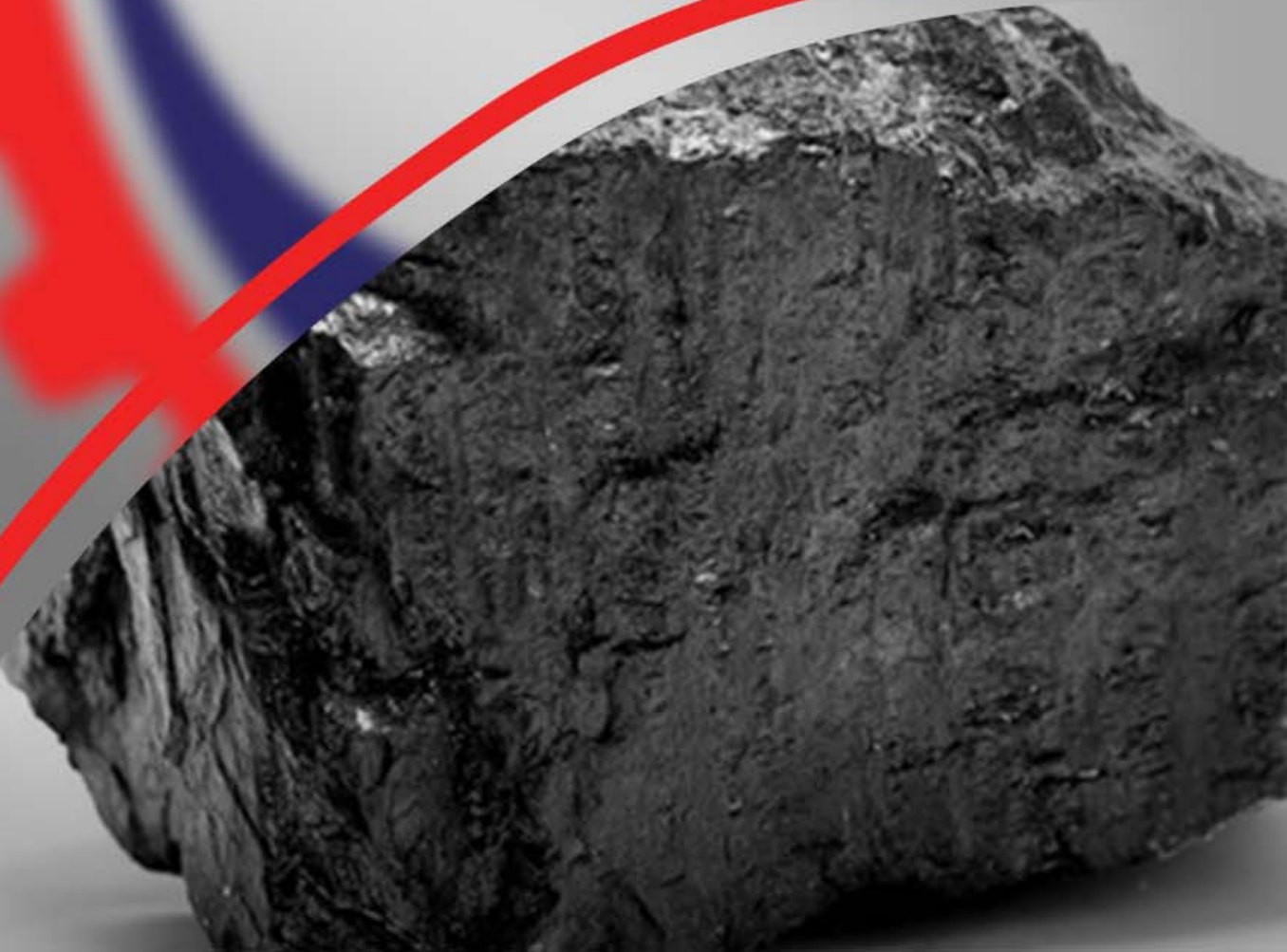
Gilsonite fluid control (FLC)

One of the common applications of gilsonite is its function to control the flow of drilling liquids in oil fields. Gilsonite, with its various grades and formulations, is used to deal with the effects of instability in wells, and lubrication in highly divergent cavities. Based on scientific research, well-structured gilsonite minimizes the deposition of cavities in foundations containing water-sensitive shales. It also eliminates the entrapment of drilling tools caused by accumulation of thin-walled sediments.



Field of oil

Gilsonite is used in sludge or drilling fluids as well as cementing for oil wells.



It is one of the ingredients of oil-based drilling sludge used in shales and other geological constructs.



Asphalt and pavement

Gilsonite is used to improve the quality of asphalts. Pavement mixtures modified with this product are much better and can be integrated without the need for grinding with asphalt mixtures. In addition, gilsonite-modified asphalts have more durability, less deformation, less thermal vulnerability, and more water resistance.

Casting

By mixing gilsonite, coal and other compounds as casting sand additives, and improving the release of the mold and the overall surface of the metal casting, the quality of the cast part is ensured.

Chemical products

Another application of gilsonite is that it can mix with other chemicals that benefit from its unique physical and chemical properties. The application of gilsonite in adhesives and coatings, metallurgy, wood products, and refractory industries, testifies to the compatibility and effectiveness of this extraordinary material.



Inks and colors

Gilsonite resin is often used as the primary carbon of black ink, headset and gravure inks. It sure is a good substitute for petroleum, phenolic and thin metal wire hydrocarbon resins, which can act as a complement for all.





In fact, concentrations of gilsonite resin are used for durable inks with better gloss and adhesive properties.

Packaging

Gilsonite packaging is offered in three models: multilayer laminated bags (25kg \pm 5%) and multilayer kraft bags, (25kg \pm 5%) and AD star bags (25kg \pm 5%). It is common to use 1000 kg jumbo bag or paper and polypropylene bag on a pallet to get the most out of the container. In most cases, jumbo packaging is recommended to customers because this type of packaging is the least expensive.



