

Physical and Chemical Properties of Gilsonite


1. Physical Properties:

- **Appearance:** Black, brittle solid
- **Odor:** Slight petroleum odor
- **Softening Point:** 150 - 220°C
- **Specific Gravity:** 1.05 - 1.10
- **Moisture Content:** Max 1%
- **Ash Content:** Max 5%
- **Volatile Matter:** 55 - 75%
- **Solubility in Toluene:** Min 99%
- **Penetration (25°C):** <1 dmm
- **Melting Point:** 140 - 160°C
- **Boiling Point:** Not applicable
- **Solubility in Water:** Insoluble

2. Chemical Composition:

- **Carbon (C):** 75 - 85%
- **Hydrogen (H):** 8 - 10%
- **Sulfur (S):** 0.3 - 4%
- **Nitrogen (N):** 0.5 - 3%
- **Oxygen (O):** 0.5 - 4%
- **Asphaltene Content:** High
- **Resin Content:** Moderate

3. Performance Characteristics:

- **High adhesion properties**
 - **Excellent water resistance**
 - **Good thermal stability**
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- A vertical line extends downwards from the center of the horizontal line at the bottom of the page.

- **High asphaltene and resin content**

4. Applications:

- **Drilling Fluids:** Used as a fluid loss control agent in oil and gas drilling.
- **Asphalt and Road Construction:** Enhances asphalt performance and durability.
- **Inks and Paints:** Acts as a carbon black replacement and binder.
- **Foundry Industry:** Used in mold and core manufacturing.
- **Waterproofing and Sealants:** Applied in roofing and waterproofing materials.

5. Packaging & Storage:

- **Packaging:** 25 kg bags, 50 kg bags, or bulk in jumbo bags.
- **Storage Conditions:** Store in a dry, cool, and well-ventilated area.
- **Shelf Life:** 12 months if stored properly.

6. Compliance & Certifications:

- Meets industry standards for bitumen applications.
- Compliant with API and ASTM specifications.

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