Technical Data Sheet (TDS) – Natural Asphalt (Gilsonite)

Product Name: Natural Asphalt
Alternative Names: Gilsonite, Natural Bitumen, Asphaltite
Supplier: ATDM
Product Category: Natural Hydrocarbon / Asphalt Additive
Physical Form: Powder, Granules, Lumps

Product Description

Natural Asphalt (Gilsonite) is a naturally occurring solid hydrocarbon material known for its high softening point, strong binding properties, and compatibility with bituminous compounds. Manufacturers use it in road construction, waterproofing membranes, industrial coatings, printing inks, and oilfield drilling fluids.

ATDM supplies Natural Asphalt in different commercial grades and particle sizes to meet industrial processing and application requirements.

Technical Specifications – Natural Asphalt

Parameter	Typical Specification
Product Name	Natural Asphalt (Gilsonite)
Appearance	Black to dark brown solid
Physical Form	Powder, granules, lumps
Softening Point	180–230°C
Ash Content	1–20 wt.%
Moisture Content	1–3 wt.%
Volatile Matter	44–63 wt.%
Fixed Carbon	29–35 wt.% (reference grade)
Specific Gravity (25°C)	Approximately 1.11
Solubility in Carbon Disulfide	60–98 wt.%
n-Heptane Insolubles	Approximately 79 wt.% (reference grade)
Penetration at 25°C	Approximately 0 dmm
Particle Size	4–200 mesh or customized
Water Solubility	Insoluble
Odor	Mild petroleum-like odor
Packaging	25 kg bags, 50 kg bags, jumbo bags, bulk

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Note: The values above are indicative ranges across different Gilsonite grades, not certified specifications for a single product batch.

Main Applications

Asphalt Modification: Improves asphalt binder stiffness, resistance to rutting, and high-temperature performance in properly designed formulations.

Waterproofing and Roofing: Supports the production of waterproofing membranes, roofing compounds, sealants, and protective coatings.

Paints and Printing Inks: Provides dark coloration, binding properties, and compatibility with selected solvents and resin systems.

Oil and Gas Drilling: Supports filtration control, fluid-loss management, and wellbore stability in suitable drilling fluid formulations.

Industrial Manufacturing: Functions as a natural hydrocarbon binder in specialized industrial compounds and construction materials.

Packaging

ATDM supplies Natural Asphalt in 25 kg bags, 50 kg bags, 1000 kg jumbo bags, and bulk shipments. Customized particle sizes and commercial grades are available upon request.

Storage and Handling

Store Natural Asphalt in a cool, dry, and well-ventilated area. Protect the material from moisture, excessive heat, direct sunlight, and ignition sources. Keep packaging tightly sealed to prevent contamination.

Avoid generating airborne dust during handling and processing. Use appropriate personal protective equipment and follow the applicable Safety Data Sheet (SDS).

Quality Control

Recommended quality control tests include softening point, ash content, moisture content, specific gravity, and particle size distribution. Customers should request a grade-specific Certificate of Analysis (COA) to verify technical compliance.

Technical Disclaimer

This Technical Data Sheet provides general information about Natural Asphalt (Gilsonite). Technical properties may vary depending on geological origin, selected grade, and production batch. All numerical values are indicative and should be confirmed through laboratory testing and the relevant Certificate of Analysis before commercial application.

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