Basekim
Chemical Production Co.Ltd.

TECHNICAL DATA SHEET (TDS) – Gilsonite Pipe Coating Grade
Product: Gilsonite – Pipe Coating Grade
Supplier: Basekim Chemical Production Co.

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1. Product Description

Gilsonite is a naturally occurring solid hydrocarbon (natural asphalt) used as an additive in high-performance coatings for steel pipes, especially for external coatings in oil, gas, water transmission lines. When blended with bitumen or synthetic resins, it enhances hardness, adhesion to metal, chemical and moisture resistance, and overall durability of the coating.

2. Key Benefits

- Excellent adhesion to metal surfaces (steel, concrete).
- Outstanding waterproofing and moisture resistance.
- Enhanced chemical, abrasion and UV resistance compared to simple bitumen coatings.
- Hard durable coating film with good bond strength and long service life.
- Cost effective natural alternative to synthetic resins or coal tar pitches.
- Suitable for harsh environments (underground, exposed pipelines, corrosive conditions).

3. Typical Applications

- External pipeline coatings (oil, gas, water transmission).
- Hot-applied bitumen or resin-modified coatings.
- Pipe primers or mastic coatings for steel substrates.
- Waterproofing of buried pipeline sections, manholes, valves, fittings.
- Underground infrastructure where long durability and corrosion resistance required.

4. Typical Technical Specifications

Physical & Chemical Specifications (example values for pipe-coating grade)

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Property	Typical Value
Appearance	Black, brittle, glossy solid
Softening Point	150-220 °C
Specific Gravity	~1.04
Moisture Content	<1%
Ash Content	0.5-15% (depending on grade)
Carbon Content	~85%
Hydrogen Content	~10%
Nitrogen/Sulphur + Ash	Vary by grade

Grade Options:

- Select Grade: For high-performance anti-corrosion coatings.
- Medium Grade: Cost-effective for general coating needs.
- High-Ash Grade: For flexibility or when less hardness required.

5. Formulation & Usage Guidelines

Blending Instructions:

1. Heat base bitumen or resin system to ~160-180 °C (or as per system design).
2. Slowly add Gilsonite flakes or powder while stirring until fully integrated and homogeneous.
3. Adjust viscosity and temperature as required for coating application method (brush, spray, dip).
4. Apply coating to cleaned and prepared steel substrate as per coating specification.
5. Allow curing / cooling to form the hardened film.

Dosage guidance:

- Typical replacement of resin/bitumen modifier: ~10-60% by weight depending on formulation demands (hardness, penetration, flexibility).
- For pipe coatings: dosage tailored by coating designer; higher percentage gives harder film, lower gives more flexibility.

6. Compatibility

Gilsonite is compatible with bitumen and many synthetic resin systems

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(alkyds, epoxies, phenolics) when properly formulated. It improves film hardness and adhesion, but users should conduct compatibility and performance trials for the specific coating system.

7. Packaging & Storage

Packaging Options:

- Multi-layer paper bags (25 kg)
- Jumbo bags (500 kg, 1000 kg)
- Customized private-label bags

Storage:

- Store in dry, cool, well-ventilated warehouse
- Protect against moisture, direct sunlight, heat
- Keep sealed and avoid contamination
- Shelf life: indefinite if stored properly in original packaging

8. Quality Control

Every shipment includes Certificate of Analysis (COA) showing key parameters: softening point, moisture, ash content, particle size (if applicable), specific gravity. Basekim monitors production with standard methods and internal QC.

9. Safety & Handling (Refer to SDS)

Use proper personal protective equipment (PPE) during handling and blending (see SDS Section 8). Avoid inhalation of dust and ensure good ventilation in blending and transfer operations.

10. Disclaimer

The values in this TDS are typical and not guaranteed. Users must perform their own formulation evaluation and suitability for their own coating system, environment and application. Basekim will not be liable for performance failure due to formulation or application outside of its control.