

Gilsonite

GILSONITE additive is a naturally occurring asphaltite used for high temperature, high-pressure (HTHP) filtration control in all oil-base systems.

The softening point of GILSONITE additive makes it suitable for use over a wide range of temperatures. It is often used to seal low pressure and depleted formations.

Typical Physical Properties

Physical appearance	Black powder
Specific gravity	1.04-1.06SG
Bulk Density.....	.540 kg/m3
Flash Point.....	316 C
Softening point.....	185-214 C

Applications

GILSONITE asphaltite reduces both API and HTHP fluid loss in all oil-base muds. It helps improve the overall emulsion stability, thermal stability and suspension characteristics of most oil-base formulations. GILSONITE asphaltite also slightly increases viscosity, especially at lower temperatures due to its partial solubility. Typical concentrations range from 2 to 8 lb/bbl (5.7 to 23 kg/m3), with occasional daily additions in the 0.25 to 0.5 lb/bbl range (0.71 to 1.43 kg/m3). High-temperature situations and special applications require higher concentrations, as much as 10 lb/bbl (29 kg/m3).

When used in the initial formulation, it is recommended to add GILSONITE asphaltite last. For existing systems, the product can be added at any time, mixed slowly during at least one complete circulation. Monitor solids control equipment for several circulations after initial addition to ensure the product is not being discarded. Pilot testing is advised to determine the necessary treatment to achieve the desired results and to observe the change in mud properties.

Advantages

- Wide range of applications with BHST up to 350°F
- Reduces API and HTHP fluid loss in all oil-base systems
- Enhances emulsion and thermal stability

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Eastern Hemisphere	Western Hemisphere
Gamle Forusvei 43	P.O. Box 42842
N-4033 Stavanger,	Houston, Texas 77242-2842
Norway	Phone: 281-561-1300
Phone: +47-51-57-73-00	Fax: 281-561-1441
Fax: +47-51-57-74-51	www.miswaco.slb.com



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Limitations

- Environmental restrictions concerning the use of oils and oil-base fluids should be considered since GILSONITE asphaltite is used in conjunction with oil
- Temperature limitation of 365-400°F

Toxicity and Handling

Information on biological data can be provided upon request.

Handle in accordance with the Material Safety Data Sheet (MSDS) and general requirements for working with industrial reagents

Packaging and Storage

GILSONITE asphaltite is packaged in 50-lb (22.7-kg) and 55.1 lb (25-kg), multi-wall, paper sacks.

Store in a dry, well-ventilated area. Keep container closed. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.

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Schlumberger