

# AMERICAN GILSONITE

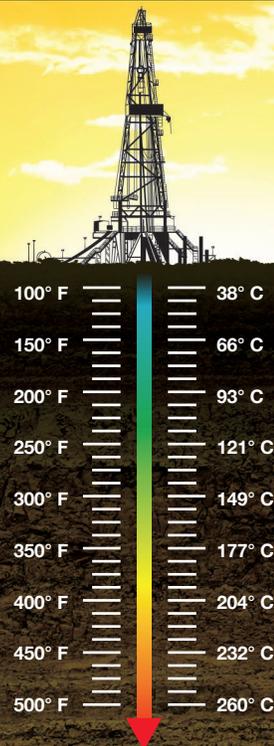
Expanded range of HT products readily available in ample supply

## When conditions are the worst, Gilsonite® HT is the best

Gilsonite® HT is a safe, naturally occurring hydrocarbon resin with a high softening point. It performs in the most extreme drilling environments, where few mud additives can survive – and at a lower cost.

### Gilsonite® HT performs in the most extreme conditions:

- > Enhances mud properties for HP/HT environments
- > Extends thermal life 10% or more
- > Prevents lost circulation
- > Minimizes differential sticking
- > Performs in WBM, OBM and SBM
- > Reduces cost vs. polymers
- > Delivers higher performance with no HSE risk



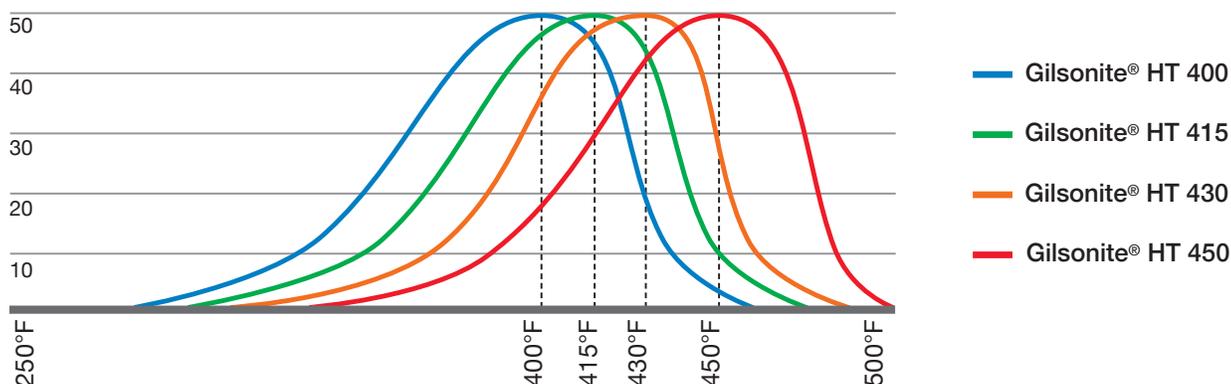
## Gilsonite® is engineered to extend thermal life

American Gilsonite Corporation's mines have yielded variations of uintaite with a range of softening points. Carefully selected varieties of pure Gilsonite® uintaite have been combined to perform to customers' specifications, at temperatures as high as 500°.

Adding Gilsonite® extends the thermal life of synthetic-based mud and water-based mud formulations by 10% or more.

### High Softening Points (% Cumulative Particle)

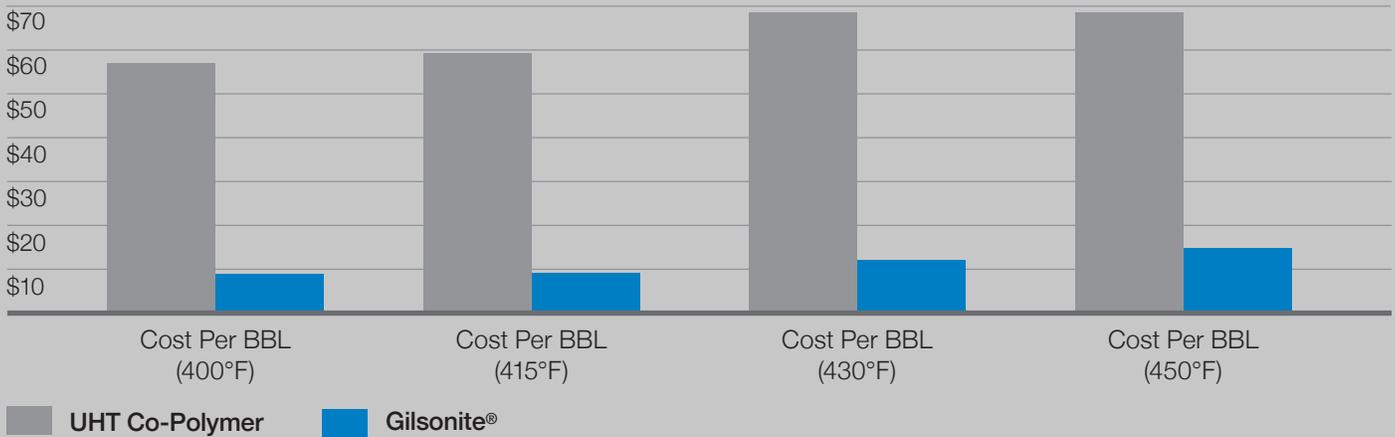
Gilsonite® uintaite products offer a variety of softening points to meet drilling requirements



## Gilsonite® HT reduces costs more than 80% vs. polymers

With its high softening point, Gilsonite® HT delivers greater cost advantages at higher temperatures.

**Gilsonite® uintaite improves performance at a fraction of the price of synthetics alone.**



## A range of products to meet your needs

Carefully selected varieties of pure Gilsonite® uintaite are combined to meet specific customer requirements in a cost-effective manner.

Product	Softening Point	Mud Type
Gilsonite® HT 450	>450° F	Invert Emulsions
Gilsonite® HT 430	>430° F	Invert Emulsions
Gilsonite® HT 415	>415° F	Invert Emulsions
Gilsonite® HT 400	>400° F	Invert Emulsions

Also available for water-based systems.

## We have the capacity to meet your demands

To ensure an ample and secure supply of Gilsonite® uintaite, we have made extensive investments to expand our mining capacity and improve our product engineering processes.

- > Significantly expanded mining capacity
- > Developed and acquired long-life reserves
- > Reduced lead times
- > Ample supply of Gilsonite® for decades to come
- > Continuous R&D to develop new products
- > Rigorous QA/QC ensures consistency and reliability

## A case history: Gilsonite® eliminates logging tool sticking tendency in OBM

An international oil company successfully drilled multiple HP/HT wells offshore in Asia, but experienced delays and problems during logging operations due to the tendency of logging tools to stick.

Well depths ranged from 14,010 ft to 15,960 ft with bottomhole temperatures from 400° F to 432°. Mud densities ranged from 10.4 ppg to 14.4 ppg. The oil company and the drilling fluids provider conducted laboratory testing that confirmed that adding a high softening point Gilsonite® uintaite to the OBM would improve filtration characteristics and filter-cake development. This treatment strategy was adopted during the final drilling phase and before logging commenced.

Gilsonite® proved to be effective in optimizing drilling fluid performance characteristics, eliminating logging tool sticking tendencies and allowing wireline logging over 90 hours, and reducing costs by eliminating non-productive time during the logging process.

## Naturally occurring Gilsonite® provides extreme performance with no HSE risks

Gilsonite® uintaite has significant health advantages over synthetic products. It is non-toxic, non-carcinogenic, non-mutagenic, and requires only standard PPE safety measures for handling or disposal.



There's only one source of Gilsonite®. **Proven under pressure®**

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