

BT-181

Organophilic Bentonite

Rheological Additive

Technical Data Sheet

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1. Product Description

BT-181 is an organophilic (organic modified) bentonite rheological additive supplied as a white free-flowing powder.

It is specially designed for diesel-based and oil-based systems.

BT-181 provides excellent suspension capability, thixotropy, and thermal stability in oilfield drilling fluid formulations.

2. Typical Physical & Chemical Properties

Property	Specification
Appearance	White free-flowing powder
Particle size (<76 μm , 200 mesh)	$\geq 95\%$
Volatile content (105°C, 2h)	$\leq 3.5\%$
Colloidal yield (ml/2g)	≥ 95 ml

The above data represent typical specifications and are not intended as guaranteed values.

3. Key Features

- Excellent suspension performance
- Strong thixotropic behavior
- Good anti-settling stability
- Superior thermal and pressure resistance
- Maintains stable rheological performance under high-temperature conditions
- Easy dry powder incorporation

4. Recommended System

BT-181 is suitable for:

- Diesel-based drilling fluids
- Oil-based drilling muds
- Oil-based spotting fluids
- Invert emulsion systems

It ensures:

- Efficient cuttings suspension
- Good carrying capacity
- Borehole wall protection
- Fluid loss control

5. High Temperature & Pressure Stability

BT-181 maintains stable physical and chemical properties under:

- Pressure up to 10^8 Pa
- Temperature up to 230°C

Suitable for high-temperature deep-well drilling applications.

6. Incorporation Method

- High-speed dispersion is required
- Dry powder direct addition method is recommended
- Ensure sufficient shear for optimal rheology development

Typical dosage should be optimized through laboratory testing according to the specific drilling fluid formulation and rheological performance requirements.

7. Comparable International Grades

Comparable to:

- Elementis BENTONE®-990
- VG-69
- VERSA grade rheological additives

8. Packaging

- Double-layer kraft paper bag with PE inner liner
- Valve paper bag available
- Net weight: 25 ± 0.25 kg
- Custom packaging available upon request

9. Storage

- Store in dry and ventilated conditions
- Recommended storage temperature: 0–30°C
- Keep container tightly sealed to prevent moisture absorption
- Shelf life: 24 months

10. Safety Information

Please refer to the Safety Data Sheet (SDS) before handling.

Avoid dust inhalation and use appropriate personal protective equipment.