

**RheoMinerals B81** is an amine treated organophilic bentonite clay composite used as a viscosifier and gelling agent in any oil-based drilling fluid.

## GENERAL DESCRIPTION

As part of the **RheoMinerals** “Extended Performance” Series, **B81** cost effectively increases carrying capacity and solids removal while extending the performance of the drilling fluid.

## FEATURES AND BENEFITS

- Cost effectively builds viscosity in diesel-based fluids
- Increases carrying capacity and aids in solids removal
- Extended performance over time as compared to similar organoclays
- Enhances emulsion stability
- Is environmentally non-hazardous

## PHYSICAL PROPERTIES AND LIMITATIONS

Appearance/Form	Light tan, free flowing powder
Specific gravity	1.7 g/cm <sup>3</sup>
Moisture	4.0% maximum
Sieve Analysis	80% min. passing 200 mesh
Temperature	350°F (176.7°C) Maximum

## APPLICATIONS

**B81** is recommended for use in diesel-based drilling fluids where bottom hole temperatures do not exceed 300°F (148.9°C). For temperatures above 300°F (148.9°C), we recommend additions of **RHEOSPEND S**. Please refer to the Safety Data Sheet for more information on safe handling.

**B81** requires adequate mixing, heat, and shear to provide gelation. The amount of mixing depends on the temperature of the system and the quality of shear available, as gelation increases with temperature and shear. Circulating through the bit for shear and increasing temperature downhole will help achieve full yield.

Recommended concentrations are 6 to 12 lb/bbl (17.1 to 34.2 kg/m<sup>3</sup>). Pilot testing is recommended to determine actual concentrations of **B81** before use in the field.

## PACKAGING

**B81** is packaged in 50 lb. or 25 kg multi-walled kraft paper bags. 1 MT super sacks may be available. This product is moisture sensitive and should be stored in a cool, dry location. Pallet stacking should be no more than two pallets high to prevent compaction.

We believe the information is accurate, however, actual product and product specifications may vary and we cannot guarantee the accuracy of the information. This document does not form part of a contract for sale, and as such: (i) purchasers of products should not rely on any statements made herein; (ii) purchasers are responsible for conducting their own investigations to determine if products are suitable for a particular use; and (iii) there is no warranty, express or implied, including a warranty of merchantability and fitness for use.

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## TECHNICAL DATA

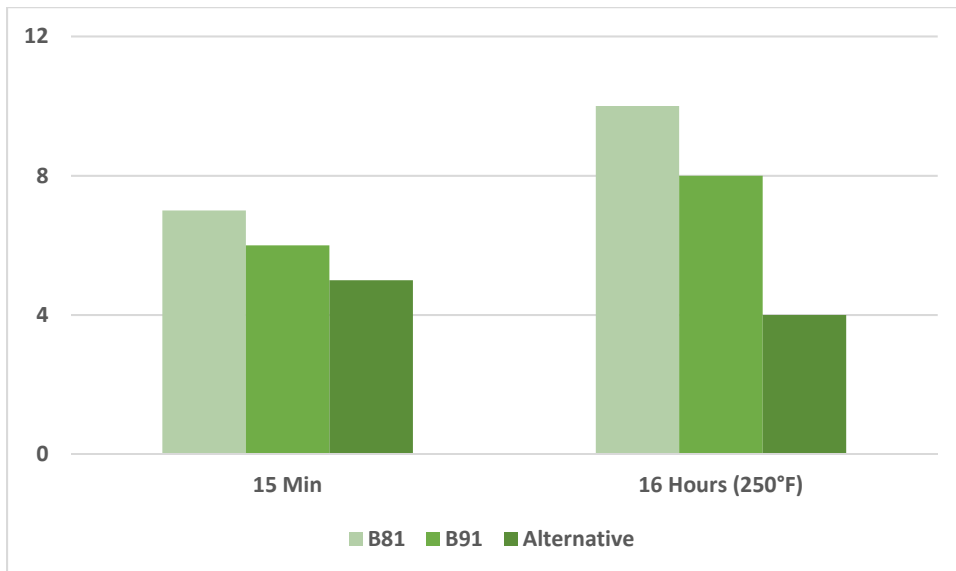
### Sample Formulation: 12.0 lb/gal (1.44 g/cm<sup>3</sup>) 80:20 Diesel-based Fluid

		15 Minute Shear	16 Hour HR 250°F (121°C)	
Base Oil, g	194.8	Electrical Stability, volts	1,163	921
Primary Emulsifier, g	5.0	θ 600 / θ 300 at 120°F (49°C)	49 / 28	56 / 33
Secondary Emulsifier, g	3.0	θ 6 / θ 3	4 / 4	6 / 6
Lime, g	5.0	0.5 rpm Brookfield, cPs	8,800	12,960
29.7% CaCl <sub>2</sub> Brine, g	74.5	Plastic Viscosity, cP	21	23
<b>B81, g</b>	<b>6.0</b>	Yield Point, lb/100 ft <sup>2</sup>	7	10
Barite (4.1), g	215.0	10-sec Gel, lb/100 ft <sup>2</sup>	4	6
		10-min Gel, lb/100 ft <sup>2</sup>	5	6

### Sample Formulation: 13.0 lb/gal (1.56 g/cm<sup>3</sup>) 67:33 Mineral Oil-based Fluid (Distillate)

		15 Minute Shear	16 Hour HR 200°F (93.3°C)	
Base Oil, g	158.0	Electrical Stability, volts	536	512
Primary Emulsifier, g	4.5	θ 600 / θ 300 at 120°F (49°C)	93 / 53	78 / 42
Secondary Emulsifier, g	3.0	θ 6 / θ 3	5 / 4	5 / 4
Oil Wetting Agent, g	2.0	0.5 rpm Brookfield, cPs	2,480	10,960
Lime, g	5.0	Plastic Viscosity, cP	40	36
29.7% CaCl <sub>2</sub> Brine, g	117.0	Yield Point, lb/100 ft <sup>2</sup>	13	6
<b>B81, g</b>	<b>8.0</b>	10-sec Gel, lb/100 ft <sup>2</sup>	4	4
Barite (4.1), g	250.0	10-min Gel, lb/100 ft <sup>2</sup>	5	4

### Yield Point: 12.0 lb/gal (1.44 g/cm<sup>3</sup>) 80:20 Diesel-based Fluid



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