



**Technical Data Sheet**

**REMY – API BARITE**

CAS# 13462-86-7

**1. DESCRIPTION**

REMY - BARITE is a high-purity Barite (Barium Sulfate content: 95% min) It is used as weighting agent in all type of drilling fluids. The barite powder meets API Specs 13A - Section 2; Philips Petroleum Specs RP 13B-1 and USGOM Environmental Specifications.



**2. APPLICATION**

Increase mud density up to 21lbs/gal (2.5 g/cm<sup>3</sup>). Control formation pressure, stabilize the borehole, prepare solid-laden plug for well control application.

*Advantages:*

- Standard weighting agent for drilling fluids
- Chemical inert
- Cost - effective weighing agent

**3. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical Properties:**

<i>Appearance</i>	White, grey to beige
<i>High specific gravity</i>	4.20 ÷ 4.44g/m <sup>3</sup>
<i>BaSO<sub>4</sub> content</i>	95 ÷ 98%
<i>Hardness (Mohs)</i>	3 ÷ 3.5
<i>Abrasiveness</i>	Low
<i>Chemical inert</i>	Yes
<i>Solubility</i>	Insoluble in oil and water
<i>Moisture Content</i>	1% max



**Chemical properties:**

Barium Sulfate content:	95 ÷ 98%
Extratable Sulfides:	50 mg/l max
Soluble Carbonate:	100 ppm max
SiO <sub>2</sub> :	0.36 ÷ 0.76 %
Fe <sub>2</sub> O <sub>3</sub> :	0.21 ÷ 0.30%

**Heavy metals:**

Cadmium (Cd)	: 1ppm max
Mercury (Hg)	: 0.03 ÷ 0.05 ppm
Arsen (As)	: < 10ppm
Zn	: < 50ppm
Pb	: 500ppm max

**Mineral Composition:**

BaSO <sub>4</sub>	95 ÷ 98 %
Opal (Q) as SiO <sub>2</sub>	1%
Gothite as Fe <sub>2</sub> O <sub>3</sub>	0.35% max
Hematite	0%
Loss on ignition	1.8% max

**Evaluation as per API 13A – Section 2 Specs.**

Property	Unit	Required	Result
Specific Gravity	g/cm <sup>3</sup>	4.20 min	4.2 min
Wet screen analysis Residue on 200 mesh sieve	% by weight	3.0 max	3.0 max
Concentration of Soluble Alkaline Earth Metal (as Calcium)	ppm	250 max	70 max
Particle less than 6 µm	% by weight	30 max	30 max

**Evaluation as per Philips Specs RP 13 B-1.**

Properties	Required	Result
Density	2.12 kg/l min	2.16kg/l max
PV	55 max	38 max
YP	25 max	15 max
pH	8.3 max	8.0 max
Ca <sup>++</sup>	500 ppm max	70 ppm
Sand	5% max	3%
Wet screen	3% max	3%
Foam	0	0
MBT	1.5 ml MB, max (0.10 - 0.15 CEC meq MB)	1.4 ml max



#### **4. RECOMMENDED TREATMENT**

The quality of Barite needed to increase mud density is given in the formular below:

$$\text{Barite required (kg)} = \frac{4200 (W_2 - W_1) V_1}{4.2 - W_2}$$

Note:

- $W_1$  : Initial mud weight ( $\text{g/cm}^3$ )
- $W_2$  : Desired mud weight ( $\text{g/cm}^3$ )
- $V_1$  : Initial volume of the mud ( $\text{m}^3$ )

#### **5. ENVIRONMENTAL AND SAFETY HANDLING RECOMMENDATIONS**

Utilize normal precaution for employee protection when handling barite powder. Usage of appropriate respirator, gloves, goggles and apron is recommended for the employee comfort and protection. REMY's barite is non toxic and considered to be harmless in the marine eco-system.

#### **6. PACKAGING**

API Barite Powder to be packed into following types:

- 100 lb sack, 40 sack per 01 pallet (W/S/P)
- 25 kg sack, 40 sack per 01 pallet (W/S/P)
- 50 kg sack, 20 sack per 01 pallet (W/S/P)
- 1 MT big bag, 2 % UV treated bag, W/liner
- 1.5 MT big bag, 2 % UV treated bag, W/liner (27t/FCL)



#### **7. ORIGIN**

China