

Bentonite

Description

Bentonite is a hydrous aluminum silicate and belongs to the family of clays being a sodium montmorillonite. It is naturally occurring and complies with the API 13A specification for drilling-grade bentonite.

Applications

Bentonite is used primarily as a viscosifier and filtration control additive in water-based drilling fluids. In addition it can be used to increase the temperature stability of water-based drilling fluids. Bentonite creates a thin and impermeable filter cake, improves hole cleaning and fluid suspension capabilities. It is commonly used for drilling surface hole intervals as a component of the spud mud.

Features and Benefits

- Used as viscosifier and filtration reducer in water-based drilling fluids
- Inexpensive
- Environmentally friendly
- Mixes easily and rapidly through the hopper
- Reduces seepage losses to permeable formations
- Assists in wellbore stabilization
- It can be stored in silos
- Thermal stability up to 300° F

Typical Properties

Appearance	Free flowing powder
Color	Tan to grey
Specific Gravity	2.5 – 2.6
YP/PV ratio (25 ppb solution)	3.0 Max.
Residue greater than 75 microns	4% Max.

Recommended Treatment

Concentrations will vary depending on the desired rheological properties. The bentonite should be added through the hopper for best hydration and dispersion results. Prior to mixing bentonite, acidic and hard water should be treated with soda ash to a pH of 8.0 – 9.0.

It is recommended to let the bentonite hydrate for at least 10 hours before pumping the fluid into the wellbore. Ideal addition speed is 1 sx/ 5 min.

Safety and Handling

Prior to using this product, refer to the safety data sheet for information on use of personal protective equipment, safe handling, storage, transport, and disposal.

Packaging

Bentonite is available in 50 lb (22.7 kg), 100 lb (45.4 kg) bags and 1 MT sacks.

No representations or warranties, either express or implied, of merchantability, fitness for a specific purpose, and/or that the products to which the information referred to in this document may be used without infringing the intellectual property rights of others, or of any other nature, are made with respect to information provided in this document, or the products referred to herein. In no case shall the information be considered a part of our terms and conditions of sale of QMax products or services. Use of the information provided in this report is at the user's risk.

“Excellence, Innovation, Integrity, Teamwork and Safety”

www.qmax.com – 11700 Katy Fwy, Ste 200, Houston, TX 77079 – Tel.: 832 672 4476