

Swellgel Bentonite



Swellgel consists of top-quality drilling bentonite with a high content of montmorillonite, properly selected polymers, and a small addition of Sodium Carbonate. The mixture is addressed to drilling operations performed in the field of medium and large diameter HDD crossings and Microtunnelling. The product is characterized by fast dispersion in fresh water and a low sand content. High parameters of structural strength and a relatively flat mud flow profile result in a high degree of borehole cleaning. Drilling mud made on the basis of Swellgel creates a thin, flexible stabilizing film on the wall of the hole. The rheological parameters of the drilling fluid prepared on the basis of Swellgel maintain resistance to changes in conditions of high shear stresses occurring during the flow of mud in a closed circuit. Swellgel Bentonite is supplied in the form of a beige powder. In order to accelerate the dispersion of bentonite in water, it is recommended to use a hydraulic hopper mixer or high-speed mixers. The time to prepare the Swellgel bentonite suspension in water is 15-20 minutes.

Rheological properties (at 20°C)

Concentration in drilling fluid [kg/m ³]	Apparent viscosity Av [cP]	Plastic viscosity Pv [cP]	Yield point Yp [lb/100ft ²]	Structural Strength 10 sec	Structural Strength 10 min
40	34.5	15	38	24	34
45	44	17	53	34	44
50	48	18	60	41	55

Recommended concentrations for application

Soil type	Concentration [kg/m ³]
Clays, loams	25-30
Fine and medium sands	30-35
Coarse sands, pebble gravels	35-40
Stones, fluid loss	40-45
Large projects	50

Physical properties

Density 2500 kg/m³

Bulk density 780 kg/m³

Humidity 11.0%

Packaging

Swellgel bentonite is packed in 25 kg multi-layer paper bags.

One pallet contains 40 bags (1000 kg) wrapped in heat-shrinkable foil.

Swellgel bentonite is also available in big bags. Store in a dry place.