

## VOLCLAY® CP-200

<b>Description:</b>	Volclay CP-200 is a natural, powdered, high-swelling Wyoming sodium bentonite. Volclay CP-200 meets API Specification 13A for Drilling Fluid Materials.													
<b>Applications:</b>	Soil/bentonite liners; slurry trenching													
<b>Composition:</b>	Sodium bentonite is a hydrous silicate of alumina primarily consisting of the clay mineral montmorillonite, which swells several times its own volume when, wetted.													
<b>Free Swell</b>	16ml/2g minimum (ACC 1010)													
<b>Filtrate Loss:</b>	18 ml maximum (API 13A)													
<b>Barrel Yield:</b>	90 minimum (API 13A)													
<b>Moisture Content:</b>	12 percent maximum as shipped													
<b>Particle Sizing:</b>	70 percent minimum passing #200 mesh (75 mm) sieve (ASTM D 422)													
<b>Dry Bulk Density:</b>	54 lbs/ft <sup>3</sup> (865 kg/m <sup>3</sup> ) typical													
<b>Packaging:</b>	50-lb (22.5-kg) multi-wall paper bags; 2000lb (900kg) or 4,000 lb (1,800-kg) super sacks; or bulk.													
<b>Availability:</b>	F.O.B. Lovell, WY. Quantities less than 1 ton may be available locally.													
<b>Application Information: Soil Liners</b>	<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 50%;">Primary Soil Type</th> <th style="width: 50%;">Typical Application Rate*</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Sand</td> <td style="text-align: center;">8-10 lbs/ft<sup>2</sup> (40-50 kg/m<sup>2</sup>)</td> </tr> <tr> <td style="text-align: center;">Silt</td> <td style="text-align: center;">4-8 lbs/ft<sup>2</sup> (20-50 kg/m<sup>2</sup>)</td> </tr> <tr> <td style="text-align: center;">Clay</td> <td style="text-align: center;">2-4 lbs/ft<sup>2</sup> (10-20 kg/m<sup>2</sup>)</td> </tr> </tbody> </table> <p>*Application rates are for a soil/bentonite liner mixed in a layer 6 inches (150mm) in thickness with a permeability of <math>1 \times 10^{-7}</math> cm/sec. Application rates above are shown for informational purposes only. All soils should be tested to determine specific application rates.</p>		Primary Soil Type	Typical Application Rate*	Sand	8-10 lbs/ft <sup>2</sup> (40-50 kg/m <sup>2</sup> )	Silt	4-8 lbs/ft <sup>2</sup> (20-50 kg/m <sup>2</sup> )	Clay	2-4 lbs/ft <sup>2</sup> (10-20 kg/m <sup>2</sup> )				
Primary Soil Type	Typical Application Rate*													
Sand	8-10 lbs/ft <sup>2</sup> (40-50 kg/m <sup>2</sup> )													
Silt	4-8 lbs/ft <sup>2</sup> (20-50 kg/m <sup>2</sup> )													
Clay	2-4 lbs/ft <sup>2</sup> (10-20 kg/m <sup>2</sup> )													
<b>Application Information: Slurry Trenching</b>	<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 33%;">Condition</th> <th style="width: 33%;">Pounds of bentonite per 100 gal of water</th> <th style="width: 33%;">Percent of Solids</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Normal</td> <td style="text-align: center;">30-50</td> <td style="text-align: center;">3.5 -5.7%</td> </tr> <tr> <td style="text-align: center;">Sand and Gravel</td> <td style="text-align: center;">50-70</td> <td style="text-align: center;">5.7 -7.7%</td> </tr> <tr> <td style="text-align: center;">Fluid Loss Control</td> <td style="text-align: center;">70-80</td> <td style="text-align: center;">7.7 -8.8%</td> </tr> </tbody> </table> <p>Mixing ratios are based on the use of fresh water; water purity will affect bentonite performance. For best results, acidic and hard makeup water should be pretreated with soda ash to a pH of 8.5-9.5. Add CP-200 slowly through jet/hopper mixer.</p>		Condition	Pounds of bentonite per 100 gal of water	Percent of Solids	Normal	30-50	3.5 -5.7%	Sand and Gravel	50-70	5.7 -7.7%	Fluid Loss Control	70-80	7.7 -8.8%
Condition	Pounds of bentonite per 100 gal of water	Percent of Solids												
Normal	30-50	3.5 -5.7%												
Sand and Gravel	50-70	5.7 -7.7%												
Fluid Loss Control	70-80	7.7 -8.8%												