



TECHNICAL INFORMATION



HYDROGEL®

Description: HYDROGEL® is a sodium bentonite meeting all API Spec. 13A, Section 9 requirements used in drilling, horizontal boring and tunneling applications as well as slurry wall and liner construction.

API Spec. 13A, Section 9

Typical Characteristics:	Barrel Yield (Bbl/ton):	98 ± 4	
	Bulk Density (lbs./ft³):	52 ± 3	
	Colloid Content (%):	>85%	
	Color:	Light Grey to Tan	
	Fluid Loss (cc):	13.5 ± 1	15
	Free Swell (cc):	24 ± 4	
	Gel Strength (10 second):	15 ± 5	
	Gel Strength (10 Minute):	25 ± 5	
	Marsh Funnel Viscosity (sec):	45 ± 2	
	Moisture Content (%):	8 ± 2	
	pH:	9.1 ± 0.4	
	Sieve Analysis	>79	
	(% Passing #200 Sieve):		
	Specific Gravity:	2.55 ± 0.1	
	Viscometer Reading (600 RPM):	38 ± 4	30 minimum
Wet Screen Analysis	<4	4% maximum	
(% Residue on #200 Sieve):			
YP/PV Ratio:	2.0 ± 0.5	3 Maximum	

Typical Chemical Analysis:	%
SiO ₂	60.34
Al ₂ O ₃	19.28
Fe ₂ O ₃	3.48
Na ₂ O	2.34
TiO ₂	.22
CaO	.38
MgO	1.67
K ₂ O	.10
H ₂ O	7.75
Other	.07
L.O.I.	4.37

EP Toxicity Analysis:	E.P.A Standard (ppm)	Typical Analysis (ppm)
Arsenic	5.0	<0.1
Barium	100.0	0.5
Cadmium	1.0	<0.05
Chromium	5.0	<0.1
Lead	5.0	<0.1
Mercury	0.2	<0.02
Selenium	1.0	<0.05
Silver	5.0	<0.1

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