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PRODUCT NAME: BENTONITE POWDER CALCIUM BASED

CERTIFICATE OF ANALYSIS -BENTONITE POWDER

FOUNDRY GRADE BENTONITE POWDER* / LUMPS

Properties	Protocol	Unit	Result
Free Swelling Volume 2 gm/100ml	ASTM D 5890:1995	ml	32-34
Methylene Blue Absorption Value	API spe 131:2004/ ISO 10416:2002	mg/gm of clay	400 - 450
Liquid Limit	IS:12446-1988	ml/100 gm	600- 700

Gel Time 2.5gm/25 ml	IS:12446-1988	second	Instant.
Gelling Index	IS:12446-1988	ml	85-90
Moisture Content % by weight	API Spec. 13A:2004/ ISO 13500-1998	%	10.0 - 12.0
PH Value 2% slurry	IS:6186-1986	pH	9.5 - 9.9
Green Compression Strength Bentonite	IS:12446-1988	psi	12.5
Water 10:4-55- 60A.F.S Sand Wet Tensile Strength	IS:12446-1988	N/cm2	0.16-0.20
Dry Mesh % Passing 200 B.S.S	IS:6186-1986	%	85 minimum

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Properties	Protocol	Unit	Result
Free Swelling Volume 2 gm/100ml	ASTM D 5890:1995	ml	28 - 30
Methylene Blue Absorption Value	API spe 131:2004/ ISO 10416:2002	mg/gm of Clay	350-400
Liquid Limit	IS:12446-1988	ml/100 gm	550 - 650
Gel Time 2.5gm/25 ml	IS:12446-1988	second	Instant.
Gelling Index	IS:12446-1988	ml	75 - 85
Moisture Content % by weight	API Spec. 13A:2004/ ISO 1350:1998	%	10.0 - 12.0
PH Value 2% slurry	IS:6186-1986	pH	9.5 - 9.9

Green Compression Strength Bentonite	IS:1918-1966	psi	12
Water 10:4 55-60 A.F. S Sand Wet Tensile Strength	IS:12446-1988	N/cm ²	0.16-0.18
Dry Mesh % Passing 200 B.S.S	IS:6186-1986	%	85
Swelling Index	IS:6186-1986	10ml/gm	Minimum 24-28

DRILLING API-13A SEC-4 GRADE BENTONITE POWDER* / LUMPS

PROPERTIES	PROTOCOL	UNIT	REQUIRED	RESULT
Viscometer Dial Reading at 600 rpm	API Spec. 13A:2004/ ISO 13500: 1998	r/min	30	35-40
Yield Point / Plastic Viscosity Ratio	API Spec. 13A:2004/ ISO 13500: 1998	-	3 Max	2.5
Filterate Volume	API Spec. 13A:2004/ ISO 13500: 1998	ML	15 Max	14
Dry Screen Analysis(Residue Greater than 75 Microns)%	API Spec. 13A:2004/ ISO 13500: 1998	% by weigh	4.0 max	3.0 - 4.0

O.C.M.A. GRADE BENTONITE POWDER*/LUMPS

Properties	Protocol	Unit	Required	Result
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Yield	OCMA DFCP-4	bbls/2000lbs	90 min	99 - 115
A.P.I. Filterate Loss	OCMA DFCP-4	ml	15.0 max	13 - 14
Moisture Content	API Spec. 13A:2004/ ISO 13500: 1998	% by weight	15.0 max.	10.0 - 12.0
Dry Screen Analysis 100 Mesh Siev	OCMA DFCP-4	% by weight	98.0 min	98.5
Wet Screen Analysis 200 Mesh Sieve residue	OCMA DFCP-4	% by weight	2.5 max	1.75

PILLING GRADE BENTONITE POWDER

Properties	Protocol	Unit	Result
Liquid Limit	IS:12446-1988	ml/100 gm	650-700
Moisture Content	API Spec. 13A:2004/ ISO 13500: 199	% by wt	12.0 Max
Dry Screen Analysis (residue on 75 um sieve	IS:6186-1986	% by. Wt	25.0 max
Free Swelling Volume 2gm/100ml	ASTM D 5890:1995	ml	30 CC
PH Value of 5% gel	IS:6186-1986	pH	9.5 - 10.0
Loose Bulk Density	IS:7589-1974	gm/ml	0.85 -1.0
Gel Time 2.5gm/25 ml	IS:12446-1988	second	Instant
Swelling Index	IS:12446-1988	10ml/gm	28

Gelling Index	IS:6186-1986	ml	75
Methylene Blue Value	API spe 131:2004/ ISO 10416:2002	mg/gm of clay	350 - 400



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