

Foundry Grade

**SODIUM BASE BENTONITE POWDER**

PHYSICAL CHARACTERS	NAME OF QUALITIES			
	HY BOND	MAX BOND	SPECIAL BOND	UNI BOND
>) GENERAL				
SAND CONTENT %	0.9	0.9	0.7	0.7
MONTMORILLONITE	90-94	95-97	97-100	97-100
P.H.VALUE	8.5	90 TO 9.5	9.5 TO 10	9.5 TO 10
MOISTURE (H2O)	10 TO 12	10 TO 13	10 TO 13	10 TO 14
FINENESS (200 MESH) MIN.	70	80	85	80
GROUP "A" PROPERTIES				
SWELLING CAPACITY	UPTO 15	16 TO 25	26 TO 32	32 TO 38
LIQUID LIMIT	300 TO 400	400 TO 500	500 TO 600	600 TO 750
M.B.VALUE (MIN)	300	350	420	440
GROUP "B" PROPERTIES				
GEL INDEX	25 TO 40	40 TO 65	70 TO 90	60 TO 75
GELLING TIME (IN MIN)	5	IMMEDIATE	INSTANT	INSTANT
G.C.S (IN PSI)	8 TO 9	9 TO 10	10 TO 12	11 TO 13

Chemical Composition

**CHEMICAL COMPOSITION OF BENTONITE**

NO.	PARAMETERS	RESULT
1	Silica (SiO <sub>2</sub> )	47.05%
2	Alumina (Al <sub>2</sub> O <sub>3</sub> )	14.85%
3	Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	4.50%
4	Sodium Oxide (Na <sub>2</sub> O <sub>3</sub> )	2.84%
5	Potassium Oxide (K <sub>2</sub> O)	0.21%
6	Calcium Oxide (CaO)	0.70%
7	Magnesium (MgO)	1.20%
8	Loss on Ignition (LOI)	12.60%

PILLING GRADE

SPECIFICATION OF PILLING GRADE

<b>NO.</b>	<b>PARAMETERS</b>	<b>RESULT</b>
1	Ph value	9 TO 10%
2	PLAT WATER ABSORPTION INDEX	550 TO 650%
3	M B ABSORPTION INDEX	370% Mg/Gm
4	GELL INDEX	50 TO 75%
5	MOISTURE	11.5 TO 12.5%
6	G.C.S	10 TO 12
7	SAND CONTENT	0.80%
8	MONTMORILLONITE	95 TO 99 %
9	LIQUID LIMIT (LL)	50 TO 75%

## DRILLING GRADE

### SPECIFICATIONS OF DRILLING GRADE

NO.	PARAMETER	API	OCMA
1	Moisture	11.45%	13 % MAX
2	Viscometer	42	35 MIN
3	Yield point/	4.2	05 MAX
4	Filtrate volu	14.5 cm	16 ml MAX
5	Residue of d	1.50%	
6	Fineness		
	100 BBS mes	99.40%	
	200 BSS mes	86.80%	2.5% MAX

FILLING GRADE

SPECIFICATION OF CONSTRUCTION

NO.	PARAMETERS	RESULT
1	Ph value	9 TO 9.5%
2	PLAT WATER ABSORPTION INDEX	400 TO 450%
3	M B ABSORPTION INDEX	400% Mg/Gm
4	GELL INDEX	50 TO 75%
5	MOISTURE	11.5 TO 13.5%
6	G.C.S	12 TO 14
7	SAND CONTENT	0.70%
8	MONTMORILLONITE	97%
9	LIQUID LIMIT (LL)	500 TO 550 %