

# Technical Data Sheet

## Pileman®

### General Description:

Pileman® is high yield sodium activated bentonite made from extrusion process.

It is superbly adaptable to requirement of all vertical drilling like bore Piling, D-walling and similar technologies.

This product has been in the market for more than 10 years and has proven well. Its unique formula is able to hold the wall of the pile and the collapse is minimal.

It does not contain any polymer but is designed to work alongwith. Hence if you encounter different soil condition there will be no need to change to a different bentonite, just add our polymer/additives to get the required slurry properties.

#### Product features:

- Yield of 110 bbl./sht
- Produces thixotropic Gel
- The slurry is designed to deposit thin impermeable filter cake, ensuring low fluid loss.
- Cools as well as lubricates drilling bit.
- Low sand content, protects your expensive mud pump liners.
- Properly calibrated to work with Easy-Bore™ (Polymer Gel) & AmPAC™ (Cellulose)

Pileman® has good compatibility with organic additives like Polymer and Cellulose. The chart on table 1 is the guide for Rheology. With change in soil profile say normal to sandy, gravel or rock the use of polymers is recommended.

In case high speed mixer is not available on Site, Pileman can still deliver same Rheology on slow mixing process with just one hour ageing time. Please refer to table 2 in the following page.

### Mixing procedure:

Simply mix 50 kg of Pileman® in 1000 ltr. fresh water and the slurry will be ready to use within 20 minutes of mixing, giving a marsh viscosity of 40"

*The water for slurry making should be treated with soda ash – light for any carbonate hardness. In case of high chloride content please refer to us for technical assistance*

Parameter	unit	Results
Free Swelling Volume	ml	28-33
pH (3% dispersion)	-	8.5 - 9.5
Moisture	%	12 max
Loose Bulk density	g/cm <sup>3</sup>	0.85 ±10%
Dry residue # 200	%	15max
Wet residue # 200	%	<2%

Rheology in fresh water - No ageing time		
Concentration	Kg/m <sup>3</sup>	50
Marsh Viscosity	Sec/qt	40
Gel Strength	Pa	7
Yield	bbl/sht	110
API filtrate (30 min under 7kg/cm <sup>2</sup> )	ml	20 -22

**Table 1**

Pileman® Concentration @ 50kg in 1000 Itr fresh water	Easy-Bore polymer Powder	Easy-Bore Polymer Gel	Am-PAC	Fann VDR 600 RPM	Gel strength Pa	Fluid Loss 22.5 Min. On 50kg/m <sup>3</sup> concentration
Pileman®	.....	500 gm	.....	40	10" Gel=10 10' Gel=11.5	19.5 ml
Pileman®	.....	750 gm	50 gm	44	10" Gel=12 10' Gel=13.5	18 ml
Pileman®	150 gm	.....	.....	52	10" Gel=13 10' Gel=14.5	18.5 ml
Pileman®	150 gm	.....	50 gm	46	10" Gel=13 10' Gel=14.5	17.5 ml

**Table 2**

For low Speed Mixing (results based on 1500 RPM mixer for 3 Min) and after 1-hour standby time	Easy-Bore Polymer Powder	Easy-Bore Polymer Gel	Am-PAC	Instant Marsh Viscosity. (Sec/Qt)	One Hr. Stand by Marsh Viscosity. (Sec/Qt)	Fluid Loss 22.5 min. (ml)
Pileman® 50kg in 1m <sup>3</sup> Fresh water	.....	500 gm	.....	43	47	20
Pileman® 50kg in 1m <sup>3</sup> Fresh water	.....	750 gm	50 gm	44	48	18.5
Pileman® 50kg in 1m <sup>3</sup> Fresh Water	150gm	.....	50 gm	48	51	18
Pileman® 50kg in 1m <sup>3</sup> Fresh Water	150gm	.....	.....	52	57	19.5



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[ Star Export House accreditation by Govt. of India ]

ISO 9001 : 2015 Quality System

Bentonite Processing plant :  
 Survey no: 583/1 plot 2-6, Bhuj Bacaho Road  
 Kutch – Gujarat , India

Only in-house production & process:  
 Bentonite | Drilling Polymer & Cellulose | Drilling Foam | Bentonite Pellets| Super Absorbent Clay