



P-WAB

CEMENTING SERVICE BULLETIN

11/29/12

P-WAB (PETROCHEM – WEIGHTING AGENT BARITE)

TECHNICAL DATA

P-WAB is used as a weighting additive for both cement and mud systems. It consists primarily of barium sulfate. P-WAB causes excessive viscosity. As a consequence, it is necessary to place additional water in slurries in order to have better control over viscosity. Additional water slightly alters the weight achieved by the addition of P-WAB and as such reduces compressive strength.

The use of dispersant creates the possibility of an alteration of water requirement. Any slurry using P-WAB should be tested in the laboratory before actual field application.

PHYSICAL PROPERTIES

<u>MATERIAL</u>	<u>FORM</u>	<u>SP. GR.</u>	<u>ABSOLUTE VOLUME</u>
P-WAB	Powder Tan	4.33	.0278 gal/lb.

SUMMARY

The major hindrance to the use of P-WAB as a weighting additive is that the need for addition water is so much that it tends to be a disadvantage in mixing (inconvenient). However, it should be noted that P-WAB was one of the first weighting agents used in drilling muds as well as cement slurries.

The following table indicated the quantity of P-WAB needed to achieve densities to a maximum of 19.0 lbs. /gal. It is based on Class G and/or H cements mixed at 15.8 lbs. using 0.024 gals of additional water for each pound of P-WAB. This creates an initial point from which densities for other quantities of water can be calculated.



TABLE I

DENSITIES OBTAINED WITH P-WAB

<u>Density lb. /gal</u>	<u>P-WAB lb. /sk</u>	<u>Water gal/sk</u>	<u>Yield ft³/sk</u>
15.8	0	4.97	1.14
16.0	4	5.07	1.17
16.5	17	5.38	1.26
17.0	32	5.74	1.36
17.5	48	6.12	1.47
18.0	52	6.21	1.50
18.5	95	7.25	1.80
19.0	131	8.11	2.05

Based on 44% mix water = 0.024 gal/lb. P-WAB

SAFETY

See Safety Data Sheet