



P-MTRF **CEMENT SERVICE BULLETIN**

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P-MTRF **(PETROCHEM-MEDIUM TEMPERATURE RETARDER FLUID-LOSS)**

TECHNICAL DATA

P-MTRF is the medium temperature retarder which also serves as a fluid loss additive.

Generally P-MTRF is not recommended as a cement retarder. However, it is frequently used as a special additive where conventional retarders and fluid loss additives do not adequately fulfill their purposes. This product is used to enhance fluid loss as a retarder at temperature between 200. F to 250. F. It is most frequently utilized in Diacel D systems.

PROPERTIES

<u>PRODUCT</u>	<u>FORM</u>	<u>SP. GR.</u>	<u>VOLUME</u>
P-MTRF	WHITE POWDER	1.35	.0890 gal/lb

SAFETY

See Material Safety Data Sheet.



CONCENTRATION

P-MTRF is normally used in the range of 0.05 percent to 0.5 percent based on the weight of the cement. In this range, no extra water is required. Concentrations greater than 0.5 percent require extra water to control the increased slurry viscosity.

FLUID-LOSS CONTROL

An important application of P-MTRF is its use as a fluid-loss control additive. Because of the retarding action, it is necessary to use an accelerator, DIACEL A, was designed for this purpose. Caution: Calcium chloride must not be used with P-MTRF as it will destroy its fluid-loss control properties.

SLURRY FLOW PROPERTIES

P-MTRF appreciably increases the viscosity of the cement slurry. These slurries can be designed for use in plug flow. It is doubtful if slurries containing 0.2 percent P-MTRF or more can be pumped in turbulent flow at reasonable pump rates.

TABLE I

TYPICAL COMPRESSIVE STRENGTH DEVELOPMENT Class A or G Cement Compressive Strength, psi

%	<u>140°F</u>		<u>170°F</u>		<u>200°F</u>	
	24 hrs	72 hrs	24 hrs	72 hrs	24 hrs	72 hrs
P-MTRF						
0	6625	7500	5565	6900	4120	4470
0.10	2820	4280	3980	5475	3175	4580
0.20	2270	4120	3855	5810	2800	4900
0.40	1990	3730	2975	5125	2580	4960
0.60	1210	3105	2010	4910	3450	4570



TABLE II
TYPICAL COMPRESSIVE
STRENGTH DEVELOPMENT
Class A or G Cements

Compressive Strength, psi

%	<u>140°F</u>		<u>170°F</u>		<u>200°F</u>			
	<u>12h</u>	<u>24h</u>	<u>12h</u>	<u>24h</u>	<u>12h</u>	<u>24h</u>	<u>12h</u>	<u>24h</u>
P-MTRF								
0.10	500	1000	750	1800	1100	2400	1500	2800
0.15	---	300	---	1200	---	1900	1400	2500
0.20	---	---	---	750	---	1600	1300	2250