



P-LTFL **CEMENTING SERVICE BULLETIN**

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P-LTFL (FLUID-LOSS AND GAS CONTROL ADDITIVE)

TECHNICAL DATA

P-LTFL is a powdered fluid-loss and gas control additive for cement slurries at B.H.C.T. up to 130 deg.°F.

With some cement brands, P-LTFL requires the use of either Calcium Chloride (as an accelerator) or P-LTRL or P-HTRL (as a retarder) in order to obtain adequate fluid loss control. However, combinations of both will also enhance the fluid-loss control.

Unlike other fluid-loss and gas control additives, P-LTFL is specifically designed to perform well in calcium chloride slurries. In the upper half of the temperature range, P-LTRL or P-HTRL retarder should be used to extend the pumping time. The performance of cement slurries containing P-LTFL should be verified in the laboratory prior to use in the field.

COMPATIBILITY

P-LTFL can be used in cement systems containing salt (under 5 % bwow), kcl, and most extenders and loss circulation additives.

P-LTFL is not compatible with conventional dispersants. Only P-LTDL (dispersant) should be used at the normal concentration of 0.1 to 0.5 gals./Sk. P-LTFL is compatible with (Gypsum - but only when used with Canadian class "A" cement) seawater and salt water, but thorough laboratory tests are recommended prior to field use.

PHYSICAL PROPERTIES

<u>MATERIAL</u>	<u>FORM</u>	<u>SP.GR.</u>	<u>PACKAGING</u>
P-LTFL	White powder	1.29	50 Lbs./Sack
P-LTDL	Clear Liquid	1.10	55 Gal./Drum



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(P-LTFL CONTINUED)

CEMENT SLURRY DESIGN.

The use of a Petrochem anti-foam agent (to insure compatibility) is necessary since difficulties achieving desired slurry weights may occur.

Figure 1 illustrates the minimum concentration of P-LTFL to effect fluid-loss and gas control. P-LTFL is more sensitive than other fluid-loss and gas control additives. Therefore, the minimum concentration of 0.3 % To 1.5% By weight of cement (Bwoc) are generally required to obtain fluid-loss and gas control, and cements with finer average particle sizes require higher concentrations of P-LTFL. Higher concentrations may also be necessary near 80 deg. F. Compared to 100 deg. F. Due to the reduced solubility of P-LTFL at low temperatures.

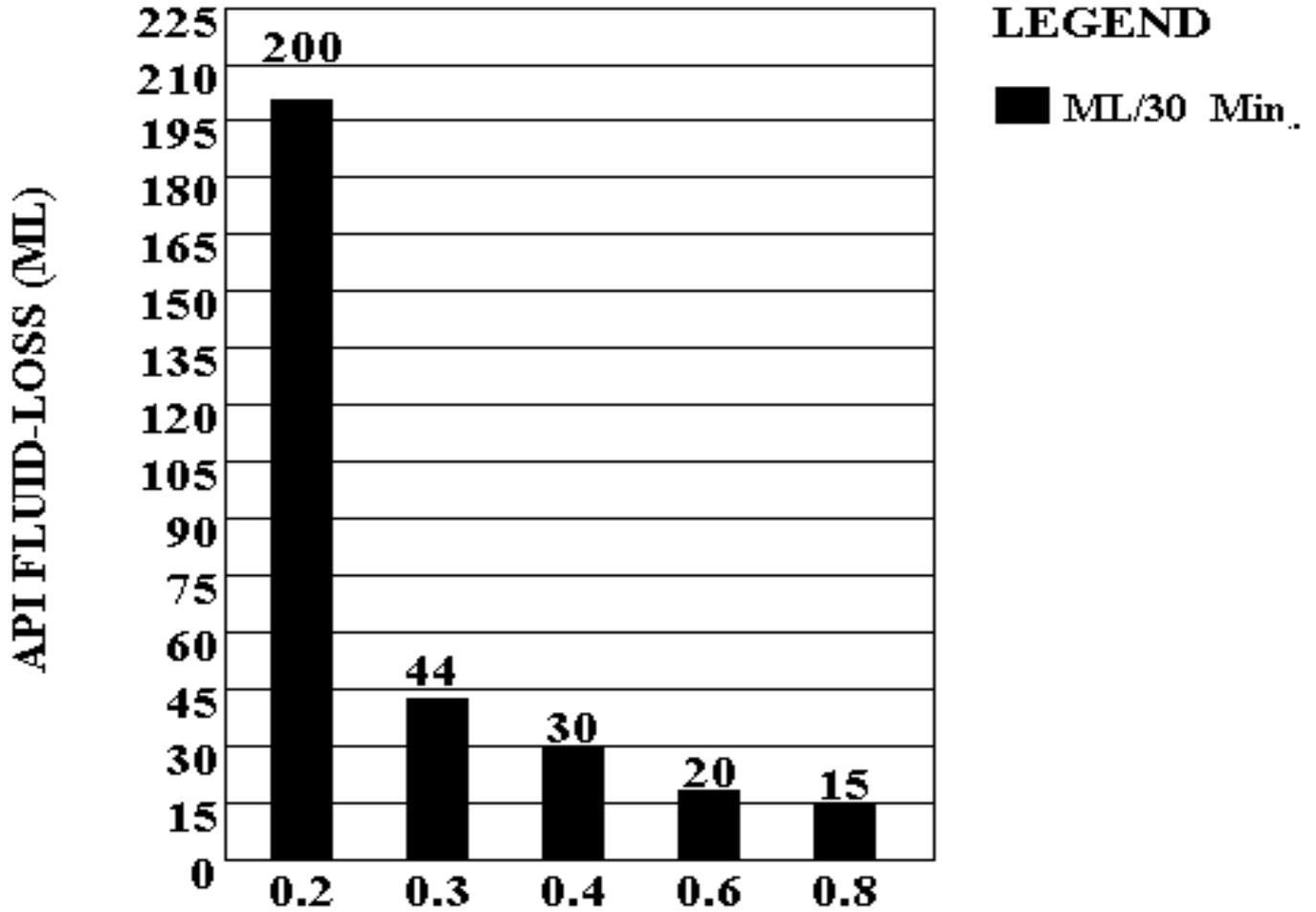
P-LTFL may be used with fly ash blends and/or bentonite systems. However, the solids content of the slurry must be kept as high as possible (i.e. Use fly ash rather than sodium silicate chemical extenders.)

DATA

The data provided gives the general behavior of cement slurries containing P-LTFL and is meant only as a guide, therefore, laboratory tests must be confirmed prior to a cement job, using the actual cement, water and additives intended for the job.



**PETROCHEM, INC. P-LTFL PRODUCT
CLASS "G" + 46% WATER + 2% CaCl₂
CONDITIONS: 100 DEG. "F" & 1000 PSI.**



**P-LTFL CONCENTRATION (% BWOC)
FIGURE 1. FLUID-LOSS VS. P-LTFL**