



# **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 (Accelerator) or P-LTRL/P-HTRL (Retarder) 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/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-D88 or P-LTDL (dispersant) should be used at the normal concentration of 0.1 to 0.5 gals./Sk. P-LTFL/P-D88 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**

<b><u>MATERIAL</u></b>	<b><u>FORM</u></b>	<b><u>SP.GR.</u></b>	<b><u>PACKAGING</u></b>
P-LTFL	White powder	1.29	50 Lbs./Sack
P-LTDL	Clear Liquid	1.10	55 Gal./Drum
P-D88	Brown powder	1.36	50 Lbs./Sack



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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.

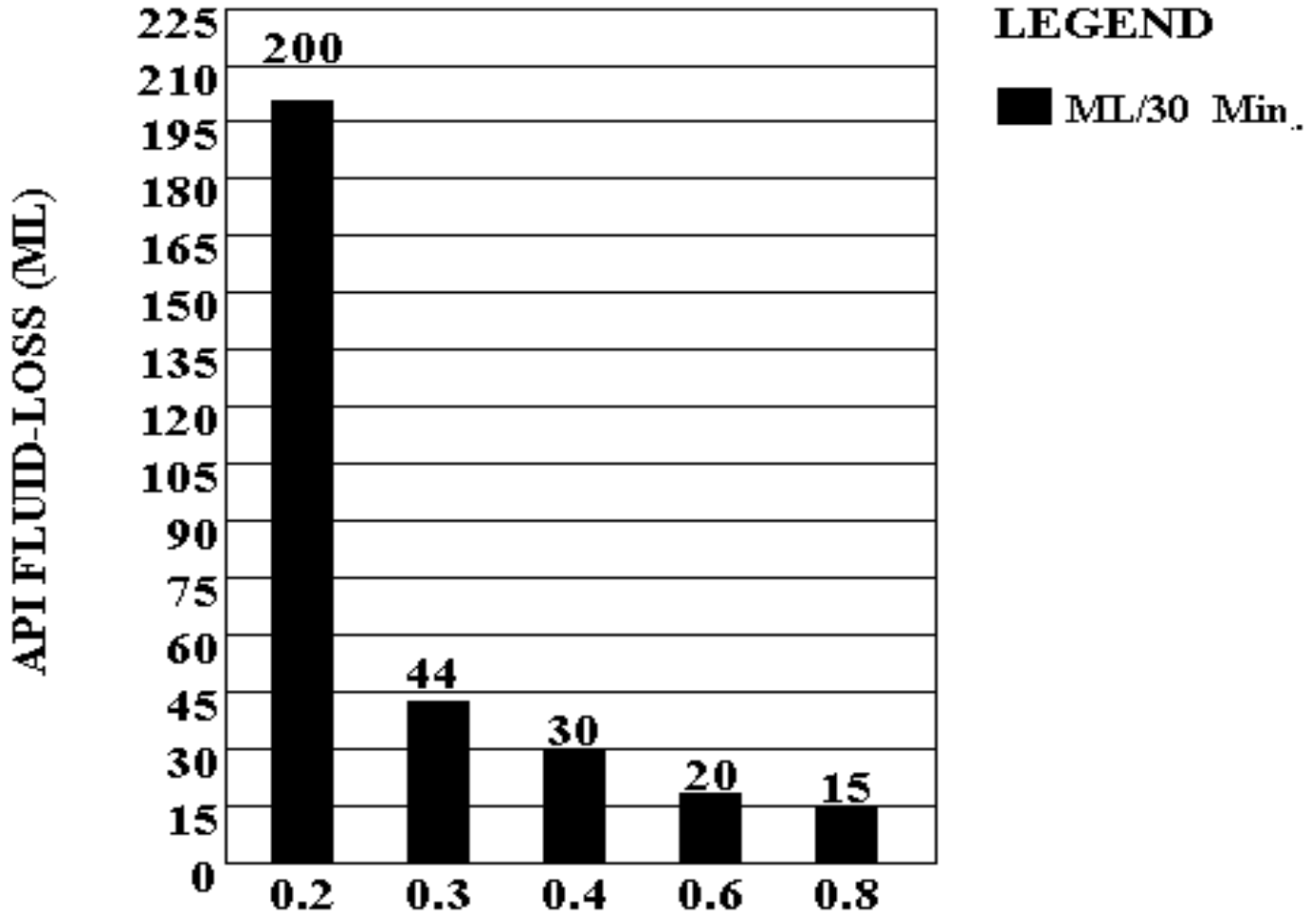
P-LTFL may be used with fly ash blends and/or bentonite systems. However, the solids content of the slurry must be kept as high as possible (i.e. Use fly ash rather than sodium silicate chemical extenders.)

### **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% CaCl<sub>2</sub>  
CONDITIONS: 100 DEG. "F" & 1000 PSI.**



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