



P-1000

TECHNICAL DATA SHEET

1/10/24

P-1000 (PETROCHEM - GAS CONTROL & SHEAR BOND CEMENT ADDITIVE)

TECHNICAL DATA

- **P-1000** is a liquid cement additive for combatting gas migration and enhancing the shear bond strength of cement to pipe and hole, at BHCT up to 200°F and can be used with either fresh, salt or sea water up to 8% NaCl BWOW.
- By adding 5% **P-500** stabilizer by volume of **P-1000** (to be optimized in the laboratory through thickening time tests so that the slurry does not gel up at 100 Bc, but sets and hardens in a minimum period of time) cement slurries may be used in salt systems up to 18% NaCl BWOW at BHCT of 180°F, up to 30% NaCl BWOW at BHCT at 85°F. and in fresh water systems between 200°F - 312°F.
- API Class "G" cement is recommended for use with **P-1000** systems, with slurry densities ranging from 12.5 - 20.5 Ppg. The optimum slurry weight is 15.8 Ppg and can be obtained by using the appropriate light weight or weighting up additives.
- A **P-1000** slurry is fully dispersed (for turbulent flow) and provides excellent fluid loss properties (30 - 40 cc/30 minutes) and adequate thickening times at a 6,000 ft. schedule of 4 - 4.5 Hours.

RECOMMENDED TREATMENT

- The normal concentration range of **P-1000** is 1 - 1.5 Gallons per sack of cement in applications for enhancing shear bond strength and 1.5 - 2.0 Gallons per sack of cement for gas bearing formations. The optimum concentration will be determined when tested with local cement & water prior to the cement job. The recommended volume of **P-1000** slurry for use on a gas bearing formation is a volume equal to that required to cover the shallowest gas zone, plus 700 annular feet above. The annular hydrostatic pressure above the shallowest gas zone should be 510% in excess of the gas formation pressure. If a lead slurry is used ahead of the **P-1000** slurry, the rheological properties are to be similar to the **P-1000** slurry (for turbulent flow) and the thickening time is to be longer than the **P-1000** slurry. This is to ensure that the annular hydrostatic pressure designed for the job is kept on the shallowest gas zone during the setting phase of the **P-1000** slurry.

PROPERTIES

- Appearance: White (Liquid)
- Specific Gravity: 1.00
- Temperature Range: < 200°F

PACKAGING

- **P-500** is packaged in 55-gallon (208L.) drums.

SAFETY

- Read the SDS before use.



CLASS H CEMENT + P-1000

DENSITY: 16.5 PPG (123.43 PCF)

W.R.: 4.28 GPS

YIELD: 1.05 CUFT/SK

THICKENING TIME UNDER A.P.I. CONDITIONS

GPS	10,000 ft.
ADDITIVE %	180°F
0.7	1:30

COMPRESSIVE STRENGTH

P. S. I. (24 HOURS)

GPS	200°F
ADDITIVE %	
0.7	3,900

The data given is to be used only as a guide.

Subsequently, each job is to be designed and tested in the laboratory with the actual water, cement and additives intended for the job, and similar mixing energy is to be duplicated in the field.