



WELL-CEM

Low Density Cement

12.0 PPG

Lightweight well cement



Low Density Cement 12.0 PPG is a lightweight cement system designed for oil and gas well cementing applications where reduced slurry density is required to minimize hydrostatic pressure and mitigate the risk of lost circulation. The system is suitable for cementing operations in weak, unconsolidated, depleted or loss-prone formations, where controlling the hydrostatic pressure of the cement slurry is critical.

The cement system can be used for primary cementing, remedial cementing and squeeze cementing applications, depending on well conditions and the cementing program. Its low-density formulation is intended to facilitate placement while providing the required cement sheath properties for zonal isolation and well integrity.

KEY CHARACTERISTICS :

- LD 12.0 system for oil and gas well cementing.
- Offers consistent performance and reduced blending requirements where lightweight solutions are required.
- LD 12.0 high-performance system reduces the total cost of low-density cementing operations.
- Suitable for weak, depleted and loss-prone formations.
- Flexible slurry density according to well design requirements.
- Suitable for lead cementing applications.
- Designed for consistent performance and efficient field operations.
- Suitable for squeeze cementing applications.

TECHNICAL CHARACTERISTICS :

CHEMICAL COMPOSITION	Value
Chlorine (Cl-) %	0,1
Sulfur trioxide (SO3) %	2,8
Free Lime (FCaO) %	2,7
Magnesium Oxide (MgO) %	1,3
SLURRY CHARACTERIZATION	Value
Specific Gravity (g/cm³)	2,8
D90	30
Water Content @12ppg (ml)	46,2
Cement Content @12ppg (g)	41,1

TYPICAL APPLICATION :

- Primary cementing.
- Weak and low-pressure formations.
- Lost-circulation-prone zones.
- Lead cement systems.

SAFETY INSTRUCTIONS :

- PPE: Wear appropriate personal protective equipment.
- Big Bag handling: Inspect the Big Bag and lifting loops before handling.
- Safe lifting: Use suitable lifting equipment and never stand under a suspended Big Bag.
- Storage: Keep Big Bags on a stable surface, dry and protected from weather conditions.

PHYSICAL PERFORMANCE 12ppg (+%0,45 BWOC)	Value
Compressive strength	
24h Curing Temp. 100°F (38°C) Psi (MPa)	696 (4,8)
72h Curing Temp. 140°F (60°C) Psi (MPa)	1088 (7,5)
Field Bleed (BP - 45deg procedure) (ml)	5
Thickening time (TT), Neat API Schedule 5 (Depth : 8000 ft, BHCT: 52°C)	
Time to 30 Bc (min)	99
Time to 100 Bc (min)	114
Bc @ 2/3 Thickening Time	8
Thickening time (TT), Retarder + 0,9% BWOC based lignosulfonate API Schedule 17 (Depth : 10000 ft, BHCT: 86°C)	
Time to 30 Bc	170
Time to 100 Bc (thickening time)	182
Bc @ 2/3 Thickening Time	0
Thickening time (TT), Retarder + 1,1% BWOC based lignosulfonate API Schedule 17 (Depth : 10000 ft, BHCT: 86°C)	
Time to 30 Bc	271
Time to 100 Bc (thickening time)	283
Bc @ 2/3 Thickening Time	1

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