



TECHNICAL  
INFORMATION  
SHEET

# FRANKLIN 10-2 THIX-O CEMENT

Franklin Thix-O is a thixotropic cement slurry which is often used in wells where excessive fallback of the cement column commonly occurs. These wells have one or more zones with low fracture gradients which will fracture and allow loss of the slurries. Once Franklin's Thix-O slurries stop moving, it very quickly gains gel strength and becomes self-supportive in the annulus, preventing slurry loss.

The bond between the casing and cement is affected by temperature and pressure changes which cause the pipe to alternately expand and contract. During the initial set of the slurry, the pipe is in an expanded state as a result of the heat of hydration of the cement. Subsequent internal temperature reduction, as a result of production fluids or with the introduction of cold treating fluids, cause the pipe to contract destroying the cement to pipe bond and creating a micro-annulus.

The expansive properties of Franklin Thix-O cement slurries have been successfully utilized throughout the Illinois Basin for years to eliminate the problem of micro-annulus. Franklin's Thix-O slurries will continue to expand for several days after the initial set.

The 10% gypsum in the system reacts with the tri-calcium aluminate (C3A), in the Portland cement to create the expansion. The expansion also creates an added benefit. It renders the set cement sulfate resistant.

### Cement Properties

Density	14.2	lbs / gal
Yield	1.61	cu ft / sk
Mix Water	7.9	gal / sk

### Compressive Strength

1295 psi @95F	24 Hour
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