

## INFORMATION

# CA-TX2

### THIXOTROPIC AGENT

#### DESCRIPTION

CA-TX2 is a yellow, granular material utilized in conjunction with CA-TX1 or CA-TX1L to produce a cement with unique thixotropic properties. Cement slurries formulated with CA-TX1:CA-TX2 exhibit rapid gel strength development when static or at low shear rates. The rapid onset of gel strength allows the cement to become "self-supporting", thus reducing cement "fall-back" and lost circulation.

#### APPLICATION

CA-TX1:CA-TX2 cement slurries are designed to have low viscosity when mixed and then gel or become self-supporting when allowed to remain static for a period of 5 minutes or less. The slurry can be thinned (gel broken) if the slurry is moved again. This process is repeatable until the cement starts to hydrate. The longer the slurry remains quiescent, the greater the gel strength and viscosity development. If thixotropic cements remain stable for more than 20 minutes, their gel strength may prevent them from being moved again. Cement slurries possessing this low-high-low viscosity behavior are characterized as being thixotropic cements. The thixotropic properties of CA-TX1:CA-TX2 cement designs make them particularly useful for combatting lost circulation and cement "fall-back" problems when cementing in areas with unconsolidated, highly permeable, fractured, vugular or cavernous formations.

#### RECOMMENDED TREATMENT

CA-TX2 is recommended at 0.25% (BWOC) and should be used with either 1.0% (BWOC) CA-TX1 or 0.166 gal CATX1L per sack of cement for slurry designs ranging in density from 12.0 ppg to 15.6 ppg. Cement mix water can vary from 5.2 to 13.8 gal/sk of cement, however, for best results the slurry density should range from 14.0-15.6 ppg. At densities above 15.4 ppg, a recirculating mixer is required for proper mixing.

Generally 2% CA-A1 is recommended for temperatures <120°F (49°C) and CA- R5 is recommended for temperatures >160°F (71°C); pilot testing is required to verify correct performance and concentrations. Although CA-TX1:CA-TX2 is compatible with most cement additives, CA-FR3P, CA-FR3L and most high temperature retarders are not recommended for use with CA-TX1:CA-TX2 cements. Due to their dispersing properties, dispersants and some retarders can reduce or destroy the thixotropic properties of CA-TX1:CA-TX2 slurries.

### **ADVANTAGES**

CA-TX1:CA-TX2 has several advantages over other thixotropic cements now in use.

- CA-TX2 is compatible with all API cements.
- CA-TX2 and its complimentary additives can be dry-blended in the cement or pre-blended in the cement mix water.
- CA-TX2 offers greater flexibility and compatibility in slurry design.
- CA-TX2 can be accelerated, retarded or used in combination with most cement additives.
- CA-TX2 compressive strengths are high enough for use as a primary cement.
- CA-TX1(L):CA-TX2 cement offers good fluid loss control.

### **SAFETY**

As with all powdered products, personnel handling CA-TX2 should wear goggles, dust masks and gloves. CA-TX2 dust is a potential fire hazard, therefore, during blending operations all opening flames and smoking should be prohibited.

If eye contact occurs, the eyes should be thoroughly flushed with water for at least 15 minutes. If any irritation persists, medical attention should be sought.

In case of skin contact, thoroughly wash the area with soap and water.

### **PACKAGING**

CA-TX2 is packaged in 50 lb (U.S.A.) or 25 kg (Europe, Africa, Eastern Hemisphere).

CA-TX2 is a Messina trademark