# **CIVIL-SPERSE® ULTRA**

# ADVANCED PH AND SALT-TOLERANT PLASTICIZER FOR CEMENT-BENTONITE

## **DESCRIPTION**

CIVIL-SPERSE ULTRA is a new-generation, liquid dispersant that acts as a super-plasticizer for cement/bentonite formulations. It has the advantage over other similar additives in that CIVIL-SPERSE ULTRA is highly tolerant of both pH extremes and the soluble-salts that are present in cement.

#### **RECOMMENDED USE**

CIVIL-SPERSE ULTRA is specifically designed for use as a dispersant for cement/bentonite mixes. Such additives are capable of greatly increasing workability while decreasing water use and improving permeability of the final trench material. Plasticizers allow for higher solids grouting formulations to be developed. Because higher solids can lead to harder sets, adding CIVIL-SPERSE ULTRA can also allow for harder compressive strengths, if correctly dosed.

#### **CHARACTERISTICS**

- Acts as a high-end water reducer
- · Allows for higher solid contents in slurry wall formulations
- · Can prevent or greatly decrease water bleed
- · Decreases permeability of the cement/bentonite grout
- Disperses cement and bentonite particles to their maximum potential
- Increases slump and flowability
- Thins cement/bentonite mixes, allowing for easier pumping and flow into the trench
- Tolerant of salts and the flocculating cations that might inhibit the dispersion of bentonite
- Works at extended pH ranges including the very high pH environment found in a typical cement slurry

## MIXING AND APPLICATION

In most cases, for lower-solids grouts, it is recommended that bentonite be prehydrated before addition of cement. CIVIL-SPERSE ULTRA should be added to the bentonite before cement addition. For very high solids mixes (over 50% by weight) it may be advisable to mix cement first, instead, in order to prevent extreme thickening.

While the dosage of CIVIL-SPERSE ULTRA will be dependent upon the particular formulation provided by the project engineer, a typical usage would be roughly 0.03% to 0.16% by weight on total slurry. Significantly higher dosages may lead to overly-long, set-up times and sub-optimal compressive strengths.

CETCO highly recommends that bench-top trials be performed in order to determine the ideal dosage of CIVIL-SPERSE ULTRA required to meet the technical needs of a particular project.

### PHYSICAL APPEARANCE

A viscous, pale amber liquid.

#### **PACKAGING**

 $\sim$ 42 lb (19 kg) pail - 32 per pallet,  $\sim$ 525 (238 kg) lb drum - 4 per pallet,  $\sim$ 2600 lb (1179 kg) tote, bulk.

North America: 847.851.1800 | 800.527.9948 | www.CETCO.com

