



CA-LC7 VOLCANIC GLASS

DESCRIPTION

CA-LC7 is a form of expanded volcanic glass, commonly referred to as Perlite. Comprised of at least 75% silica, CA-LC7 works functions extremely well in low density cement slurries as a 1) lost circulation material, 2) extender, 3) insulator, and 4) anti-strength retrogression material.

PHYSICAL PROPERTIES

Material	Form	Sp. Grav	Abs. Vol	Packaging
CA-LC7	White Powder (Free Flowing)	2.40 @ 3000 psi	0.2460 gal/lb 0.095 gal/lb (3000 psi)	4 cu ft Bags

APPLICATION

CA-LC7 has very unique properties. When applied at wellbore temperatures above the softening point of the material, CA-LC7 expands 10 to 20 times in volume. Even if the material is partially crushed during application expansion will still occur.

Typically, 1/2 to 2 cubic feet of CA-LC7 can be mixed with one sack of Portland cement to prepare excellent low density slurries ranging from 14.0 ppg to as low as 10.5 ppg (respectively). At least 2% CA-EX5 is required in the cement slurry to keep the CA-LC7 from floating to the top of the cement slurry.

At 3000 psi downhole pressure the density of the slurry, prepared on surface, will increase proportionately to the amount of CALC7 contained in the cement slurry. For example: A 1 sack:1/2 cu. ft. (Portland cement: CA-LC7) mixed at 13.8 ppg on surface will have a density of 14.8 ppg at 3,000 psi. A 1:1 blend mixed at 11.0 ppg on surface will have a density of 13.0 ppg at 3, 000 psi. And a 1:2 blend mixed at 10.5 ppg on surface will have a density of 12.1 ppg at 3000 psi. Laboratory testing is suggested for all CA-LC7 applications to ensure proper slurry design and cement density. CA-LC7 cement slurries will develop over 500 psi compressive strength in 24 hrs at all slurry densities. Maximum compressive strengths may exceed 3,000 psi.