

LCL-61

Zirconium-Based Cross-Linker

41120-007

General Information:

LCL-61 is an aqueous zirconium containing cross-linker that yields high quality, temperature stable gels. It provides a fast cross-link at low pH, 3.5 to 4.8, and a temperature delayed cross-link at high pH, 8.5 to 9.75. The ability to cross-link at low pH allows LCL-61 gets to be compatible with CO₂.

Physical Properties:

Density 8.67 – 8.92 lbs/gal.
pH (neat) 7.0 – 9.0
Solubility in Water Miscible
Specific Gravity 1.04 – 1.07
Appearance Clear, yellow to red liquid
Flash Point 84°F (29°C)

Recommended Uses:

Normal concentration range is 1 to 2 gal/1000 gallons (1 to 2 L/m³) for either low or high pH applications. At low pH, the cross-link time is less than 20 seconds. At high pH, as the temperature increases, the fluid cross-links.

Treating Applications:

Cross-links at both low and high pH to provide flexibility for treatment design. High temperature stability for deeper wells with increased bottom-hole temperature. Compatible with CO₂ foam fracturing fluids.

Used to cross-link carboxymethyl-hydroxypropylguar (CMHPG) polymers for temperature stable fracturing fluids at bottom-hole temperatures above 225°F (107°C).

Packaging:

480 lb. (218 kg) drums.



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