

Boron Zirconium Crosslinker SL-EXP4901**○ Product Description**

Crosslinkers are generally introduced to polymer-based fracturing to improve rheological properties of the fracturing fluids. SL-EXP4901 is an organic boron zirconium composite crosslinker used for crosslinking guar-based fluids.

○ Technical & Engineering Information

SL-EXP4901 introduces metal zirconium with higher valence, is prepared by using boron-zirconium common ligands. Zirconium compounds (Zr^{4+}) have a strong affinity for hydroxyl and carboxyl groups and can form stable chemical bonds with guar gum molecular functional groups (-OH, -COOH). The ligands shield and delay the release of zirconium ions to achieve the purpose of releasing boron ions and zirconium ions at different temperature ranges, perfectly cross-linking and effectively improving the colloid strength and temperature and shear resistance to 180°C.

SL-EXP4901 can be used to crosslink most guar and guar derivative based fracturing fluids. It is compatible with most additives used in fracturing fluid systems.

The crosslink is activated by raising the fluid PH value above 8.5, The crosslinking time can be controlled by adjusting the PH.

○ Technical Indicators**Technical Indicators of SL-EXP4901**

Item	Indicator
Appearance	Transparent Liquid
Colour	Light yellow to yellow
Odor	Odorless
PH	7-10
Specific Gravity	1.0-1.2
Solubility in water	Soluble

○ Recommended Treatment

Once hydration is complete and other liquid additives have been added, SL-EXP4901 can be added. The concentration is dependent on the polymer concentration, temperature and mix-water salinity.

Applicable pH range: 9-12

0.6%HPG,0.6% crosslinking agent gels performance: 160°C, 170s⁻¹ ,2 hours, viscosity > 80mPa·s

○ Packing and Storage

SL-EXP4901 is supplied in 53gallon(200L) high density polyethylene (HDPE) drums or 265gallon(1000L) IBC. Keep it away from extreme conditions such as places near flames or direct sunlight.

Shelf life: 2 years.

<http://www.stimulationchem.com/>

QUALITY, VALUE, RESPONSIBILITY

Because the conditions of use of this product are beyond the seller's control, the product is sold without warranty either express or implied and upon condition that purchaser make its own test to determine the suitability for purchaser's application. Purchaser assumes all risk of use and handling of this product. This product will be replaced if defective in manufacture or packaging or if damaged. Except for such replacement, seller is not liable for any damages caused by this product or its use. The statements and recommendations made herein are believed to be accurate. No guarantee of their accuracy is made, however.