

# ADVANTAGES

- Good proppant transport
- Low residue system for its complete degradation to ensure optimal cleaning
- It can also be energized with nitrogen (N2)
- Uses a crosslinking agent and delayed accelerator
- The activation of the fluid can be manipulated by the pH.

## **Betafrac**<sup>®</sup>

Betafrac<sup>®</sup> fracturing fluids utilize borate-based cross linker to hydrate polymers and provide increased viscosity. The crosslink is obtained by using borate that gets activated by altering the pH of the fluid system. Betrafrac<sup>®</sup> suite of additives help clean up more effectively, resulting in good regained permeability and conductivity.

Betafrac<sup>®</sup> system is a customized system made with a refined guar polymer that provides greater performance and it is suitable for applications that require a higher concentration of proppant and higher viscosity.



## PROPERITES

#### **IMMEDIATE ACTIVATION**

The fast hydration slurry with a range pH of 10.5-11.0 along with the borate cross-linker and using either tap water or brine will be activated in approximately 15 seconds. The temperature range for this system is of 70 to 225 F degrees . It offers controlled timing, viscosity and stability at the time of pumping.

#### DELAYED ACTIVATION

It uses fast hydration slurry along with the cross-linker and retarder to allow for a timedelayed activation. This unique combination produces a highly stabled fluid with excellent rheological characteristics at high temperatures but maintains a clean and predictable cut.

This delayed activation technique reduces friction and surface treating pressures that lead directly to a reduction in power requirements and final cost.

The cross-linker is adjustable on the fly to compensate for unforeseen variations in temperature ranges of 70-325 F degrees.

### LH Oil USA Office

La Centerra 2717 Commercial Center Blvd Suite E200 Katy, Texas 77494 Tel (713) 540 8905