

## High-Performance Crosslinked Borate Fluid System

YF100Flex and YF100FlexD fluid technologies

### APPLICATIONS

- Hydraulic fracturing application in all types of reservoirs
- Performs in temperatures ranging from 100 degF to 300 degF

### BENEFITS

- Provides good fluid efficiency that increases proppant placement success rate in the fracture
- Reliably adjusted crosslinked time
- Simpler handling logistics during treatment
- Provides better post-fracturing cleanup

### FEATURES

- Low concentration of proprietary crosslinker package for lower addition rate and superior rheology performance at high bottomhole pressure (BHP)
- Adjustable crosslinked time
- Good shear stability during treatment
- Excellent breaking performance
- Compatible with a range of water sources

Fracturing fluid is a critical component of any hydraulic fracturing treatment. Its main functions are to open the fracture and to transport proppant along the fracture length. Therefore, rheology properties of the fluid are usually considered the most important. In light of this, two advanced crosslinked borate fluid technologies—YF100Flex\* and YF100FlexD\*—have been developed.

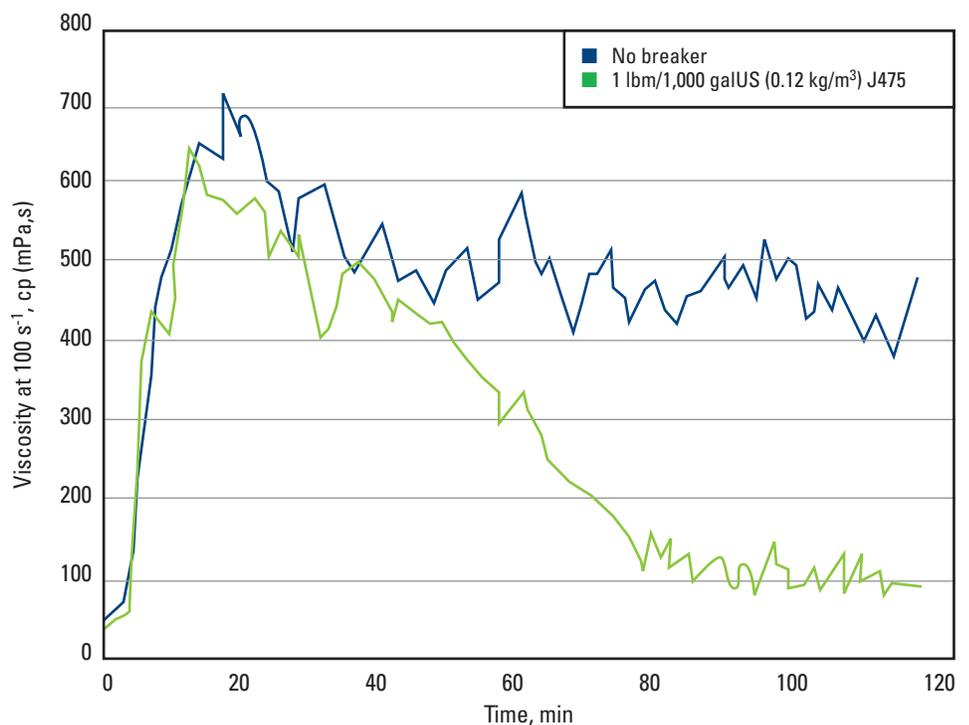
### YF100Flex – Non-Delay Crosslinked Borate Fluid

YF100Flex is designed to provide a stable, non-delayed, crosslinked borate fluid over a temperature range of 100 degF to 250 degF. This system allows the field user to eliminate separate crosslink activator additive streams, which leads to a simplified operation.

### YF100FlexD – Delay Crosslinked Borate Fluid

YF100FlexD is designed to provide consistent, reliable performance over a temperature range of 175 degF to 300 degF. YF100FlexD also offers simple modification to adjust delay crosslinked time, depending upon completion size and designed pumping rate. Controlling crosslinked delay time is critical and beneficial to getting good fluid stability against excessive shear due to tubular friction pressure.

Both fluid systems require only a low concentration of crosslinker for a smaller footprint on location. Together with CleanFRAC\* high-conductivity fracturing service, both fluid systems can be designed to break at any desired breaking time to maximize fracture cleanup. In addition, both fluid systems are compatible with a wide range of water sources, from fresh water to produced water.



Controllable, reliable breaking can be achieved with CleanFRAC high-conductivity fracturing service.

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