

TECHNICAL INFORMATION SHEET

FRANKLIN GELLED OIL SYSTEM

Some of the oil-bearing formations in the Illinois Basin can be sensitive to water and therefore prevent the use of conventional water gelling system.

Franklin Gelled Oil System (FGO) is an effective liquid oil gelling agent designed for well fracturing applications with BHST up to 300° F. FGO may be used to viscosify kerosene, diesel, and crude oil.

FGO is ideal for re-fracturing treatments on older oil wells with high paraffin, asphaltines, and tar accumulations near the wellbore. It does an excellent job of cleaning up these heavy hydrocarbon deposits and sediments. Since the diesel being used is "off road diesel," much of the fluid cost can be recouped when sold as oil production.

The FGO system requires the gelling agent to be pre-gelled prior to pumping. The FGOA activator can be pre-mixed or added on the fly. The FGO-B breaker is always added on the fly.

Normal concentrations of FGO gelling agent are generally 6 gallons per 1,000 gallons of diesel. The FGO-A activator is normally added at 1.2 gallons per 10 gallons of gelling agent being used. FGO-B is added at 50 pounds per 1,000 gallons of fracturing fluid.

Due to the high amount of impurities present within crude oil, a high amount of gelling agent is normally required. Of course, pre-job testing is always required before any FGO treatment.

One of the added benefits of FGO is the low friction pressure it exhibits during pumping. This allows the treatments to be pumped down tubing without sacrificing pump rate.