

Dry Friction Reducer

High fracturing performance with improved logistics and HSE footprint



Temperature:
Recommended range
of 45–350 degF

Where it is used

High-rate slickwater and viscous slickwater fracturing operations with freshwater or other mix waters with up to 250,000-ppm total dissolved solids (TDS)

How it improves operations

- Reduces polymer loading requirements for equivalent or better fracturing performance as compared with liquid friction reducer (FR)
- Simplifies logistics and reduces HSE footprint by eliminating petroleum distillates and risk of liquid spillage
- Eliminates concerns about freezing, separation, and recirculation

How it works

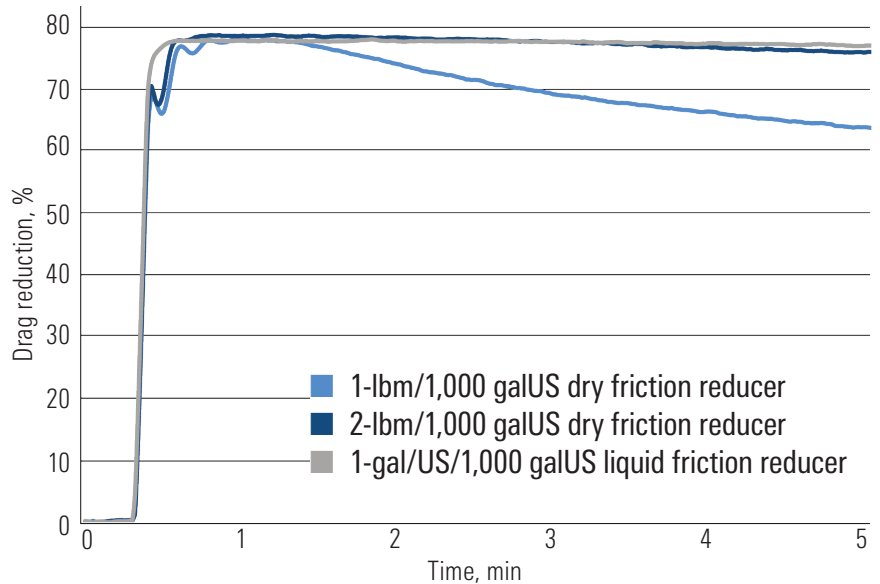
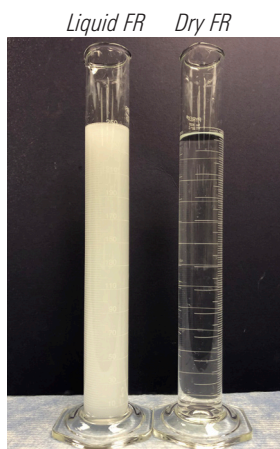
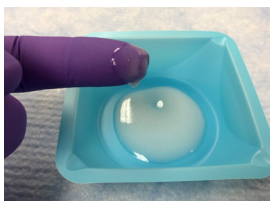
Solid polyacrylamide-based product rapidly hydrates in waters ranging from freshwater to high-brine produced water

What it replaces

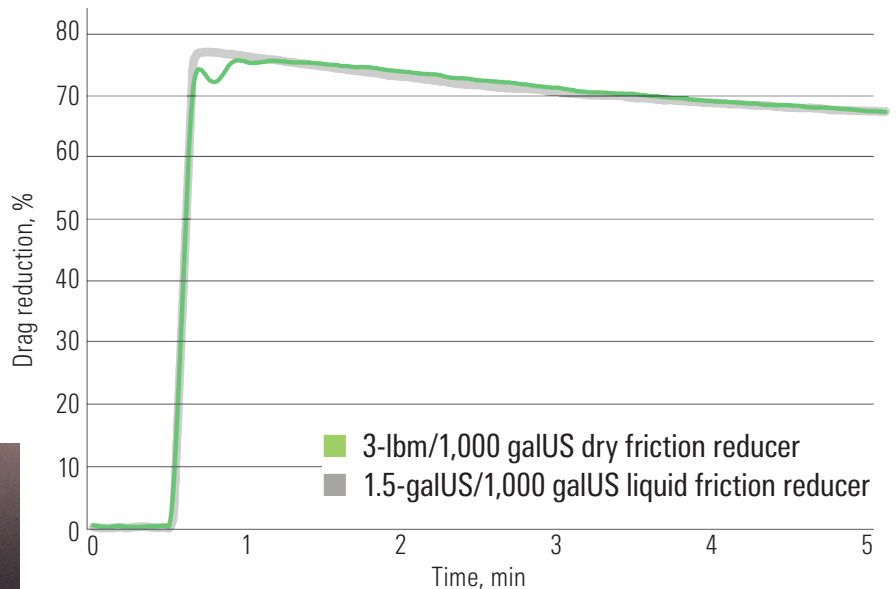
Liquid friction reducers

What else I should know

- Uses conventional equipment from guar-based fracturing operations
- Typical concentration: 1–5 lbm/1,000 galUS



Friction loop testing in freshwater at 72 degF in a 0.5-in pipe at 67 kg/min.



Friction loop testing in brine (170,000-ppm TDS) at 72 degF in a 0.5-in pipe at 67 kg/min.