



ThinFrac™ Plus FRW-45C

REDUCE FRICTION PRESSURE DURING FRACTURING OPERATIONS

APPLICATIONS

- Friction reducer for fracturing operations using fresh water to high-TDS water
- Slickwater fluid at low product loading (~0.5 to 1.0 gpt)
- Batch mixed or added on the fly

FEATURES & BENEFITS

- Reduces friction pressure by up to 70 to 80% during fracturing operations
- Rapid hydration in fresh to produced water up to 275,000 ppm TDS
- Improves performance in produced waters compared to traditional friction reducers
- Reduces fresh water use with higher-produced water cuts
- Minimizes hydraulic horsepower requirements due to lower surface treating pressures

OVERVIEW

ThinFrac Plus FRW-45C is a cationic friction reducer that effectively reduces pumping pressure in up to 275,000 ppm total dissolved solids (TDS) waters. It has extremely rapid hydration and will reduce friction pressure by up to 70 to 80% during fracturing operations by reducing turbulent flows. This friction reducer can be applied in a variety of well types including oil, gas, water and injection wells.

TYPICAL PROPERTIES

APPEARANCE	Milky, off-white liquid
FLASH POINT	> 200°F (93°C), estimated
FREEZING POINT	11°F (-27°C)
SPECIFIC GRAVITY	1.07 (at 59°F / 15°C)
VISCOSITY	< 1,150 cPs (at 75°F / 24°C)
CHARGE	Cationic