



TouSlick FR-4 Friction Reducer

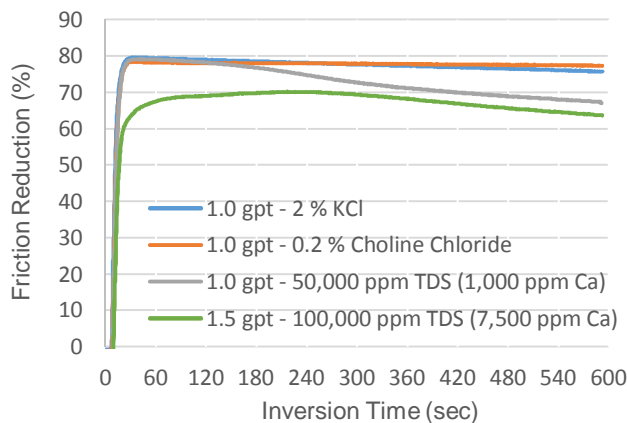
for Hydraulic Fracturing

TouSlick FR-4 is a highly effective friction reducer, designed to provide excellent friction reduction performance in water with up to 100,000 ppm TDS.

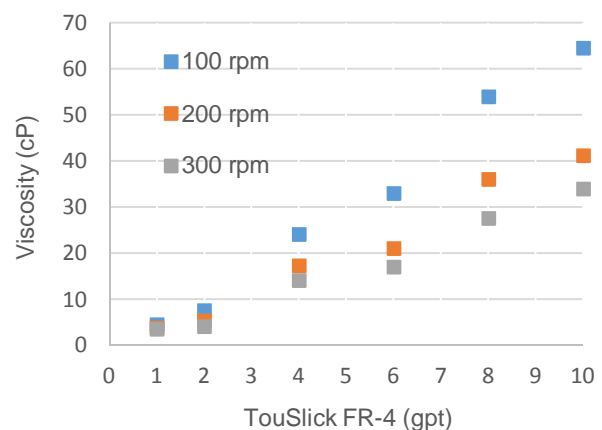
Key benefits are:

- Excellent friction reduction up to 80%, reducing horse power requirements and costs
- Very fast inversion leads to maximum friction reduction within 20 sec
- Minimal degradation allowing for best performance during pumping job

TouSlick FR-4



Inversion time of TouSlick FR-4 in various water qualities in a ½" friction loop at 10 gpm



Viscosity of TouSlick FR-4 in tap water (Fann 35 S/B1R1/ 80°F/ 27°C)

TouSlick FR-4 is an anionic friction reducer compatible with typical anionic and non-ionic additives in frac fluids. Its excellent fast hydration delivers maximum drag reduction within seconds. Stable viscosity using higher FR concentrations ensures reliable proppant placement.

Recommended Use

Dosage depends on water quality and should be determined prior to the application.

Stir container prior to field deployment to ensure best performance. The formation of a minor oil film does not affect product efficiency. Re-disperse by mechanical agitation. Do not use air-stirring, since the moisture in the air will cause hydration and lead to a high viscous mass.

Store at ambient temperature. For details please see MSDS.

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