

Technical Data Sheet

PAFR-708 Plus

Friction Reducer

High Viscosity Friction Reducer – Fresh Water

Product Description

PAFR-708 Plus is an anionic, super-concentrated (70%) slurry-based friction reducer, specifically formulated for injection on-the-fly during hydraulic fracturing operations to aid in reducing drag. This product features a high molecular weight, high charge polyacrylamide composition, making it ideal for use in fresh to medium salinity brines. The recommended dosing range for achieving drag reduction lies between 0.15-0.8 gpt.

In addition to its primary function of reducing pipe friction in fracturing treatments, PAFR-708 Plus also serves to increase viscosity in freshwater fracturing fluids, offering multiple benefits. These include enhanced proppant transportation capabilities, as well as logistical and operational efficiencies such as the need for less water yet allowing for more proppant, and a reduction in the quantity of chemicals required on-site. For applications aimed at building viscosity in fresh water, the optimum dosage rate for PAFR-708 Plus is identified to be between 2.0-3.0 gpt.

Features

- Cost-effective substitute for solid friction reducers.
- Innovative FR technology optimized for fresh to moderate saline waters.
- Effective at low concentrations (0.15-3.0 gpt) reducing the friction pressures by 70%
- Easily dispersed in water under low shear conditions
- Rapid hydration facilitates on-the-fly mixing during operations.
- Enables higher pumping rates with reduced treating pressures.

Application and Usage

The PAFR-708 Plus additive is directly incorporated into the stimulation fluid for on-the-fly application, with a usual dosage range of 0.15-3.0 gpt.

Physical Properties

Appearance	Liquid
Color	Tan
Specific Gravity	1.151
Ionic Character	Anionic
Solubility	Soluble in Water
Freeze Point	N/A
pH	4-6 (5% Solution)

Limitations and Incompatibilities

Lab testing should be conducted when used with cationic additives.

Safety and Handling

SingleTrack Solutions can supply Safety Data Sheets (SDS), outlining the necessary precautions for handling, applying, or storing this product.

Availability

PAFR-708 Plus is available in bulk and totes.

Product Performance

Friction Flow Loop Data – Fresh Water

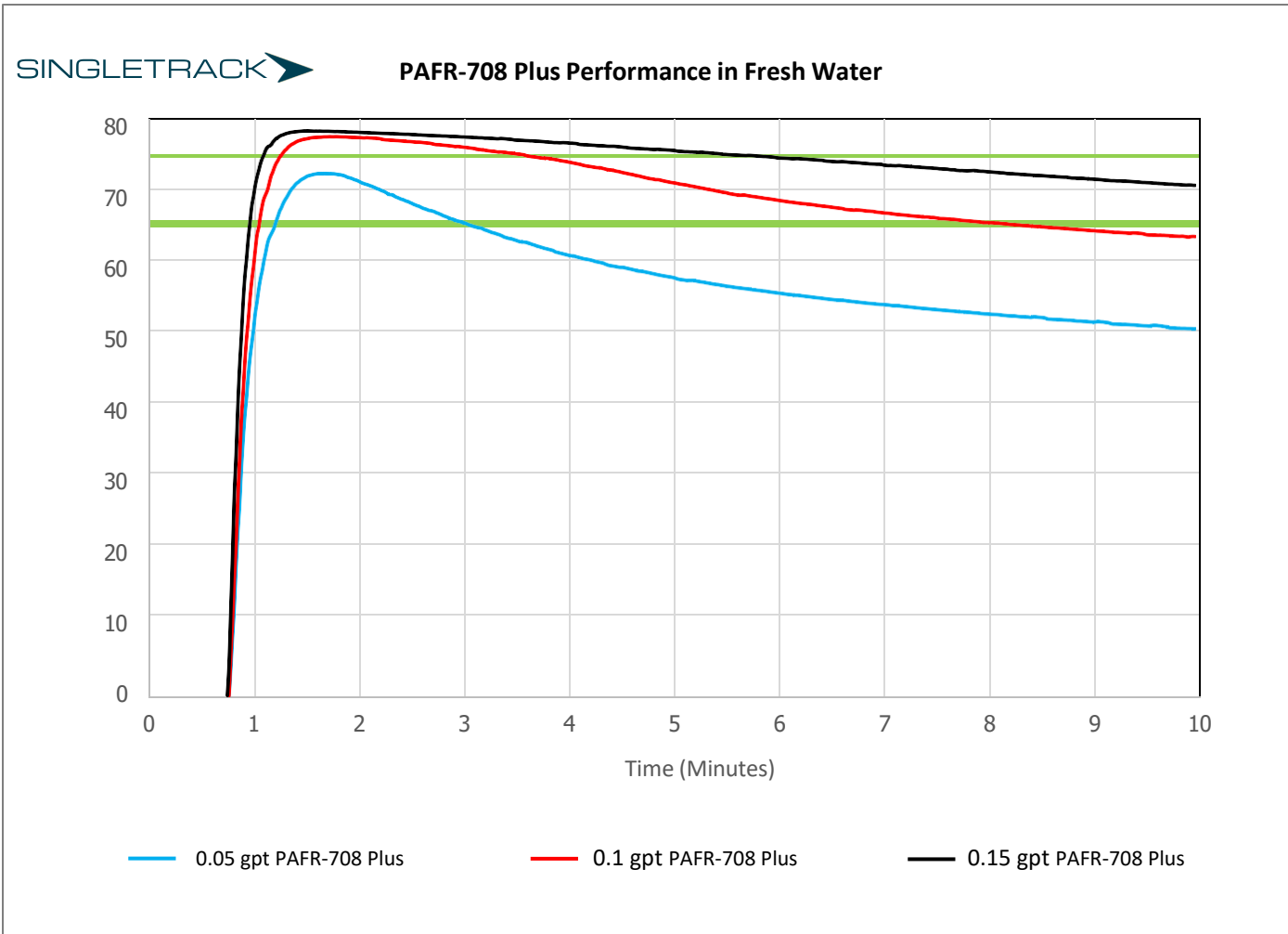


Figure 1. PAFR-708 Plus percent friction reduction in fresh water (Ametek Chandler Friction Flow Loop Model 6500)

Comparative Performance to Dry Friction Reducer

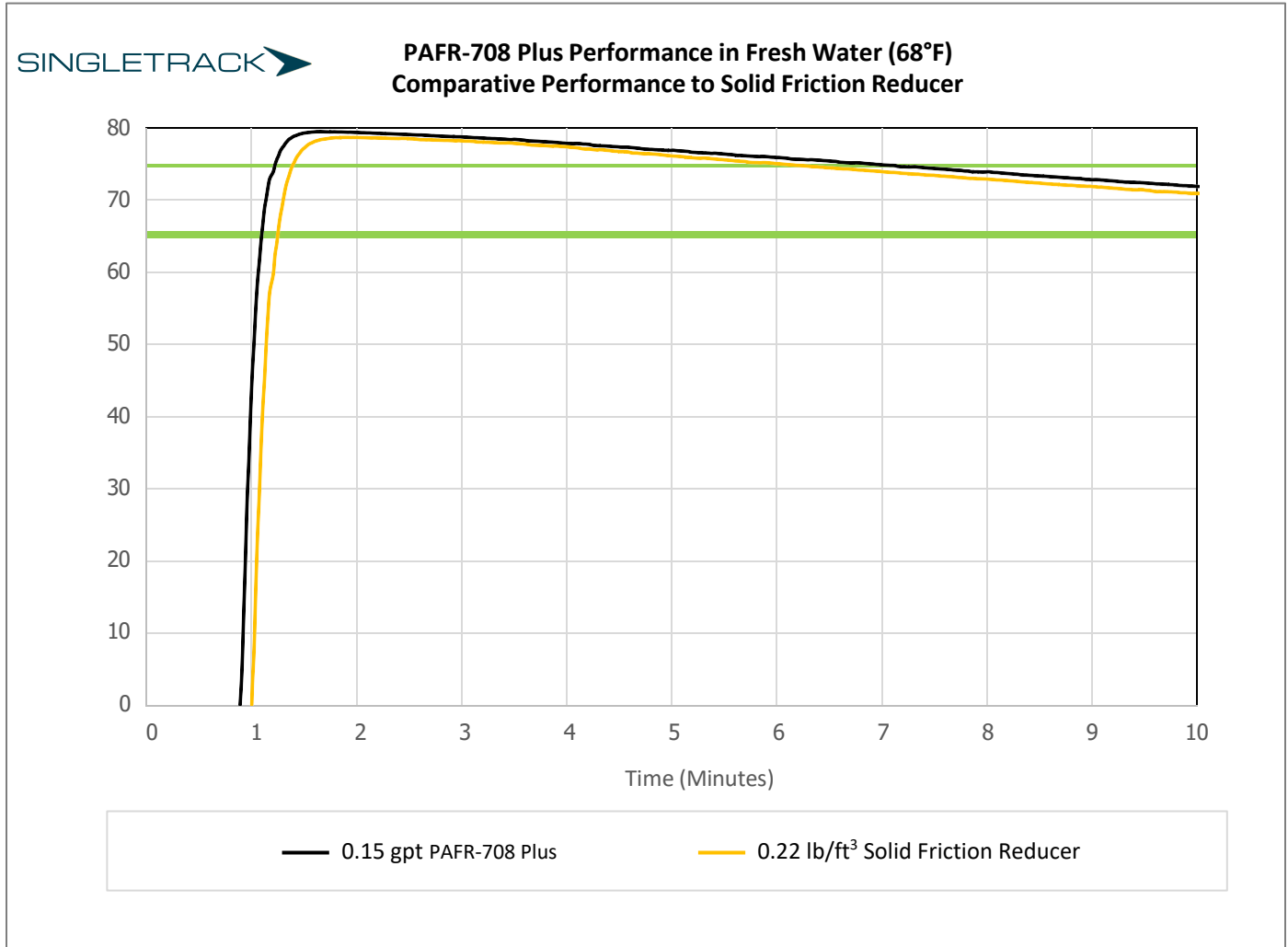


Figure 2. PAFR-708 Plus percent friction reduction in fresh water/comparative data to Solid friction reducer (Ametek Chandler Friction Flow Loop Model 6500)

Rheology Data

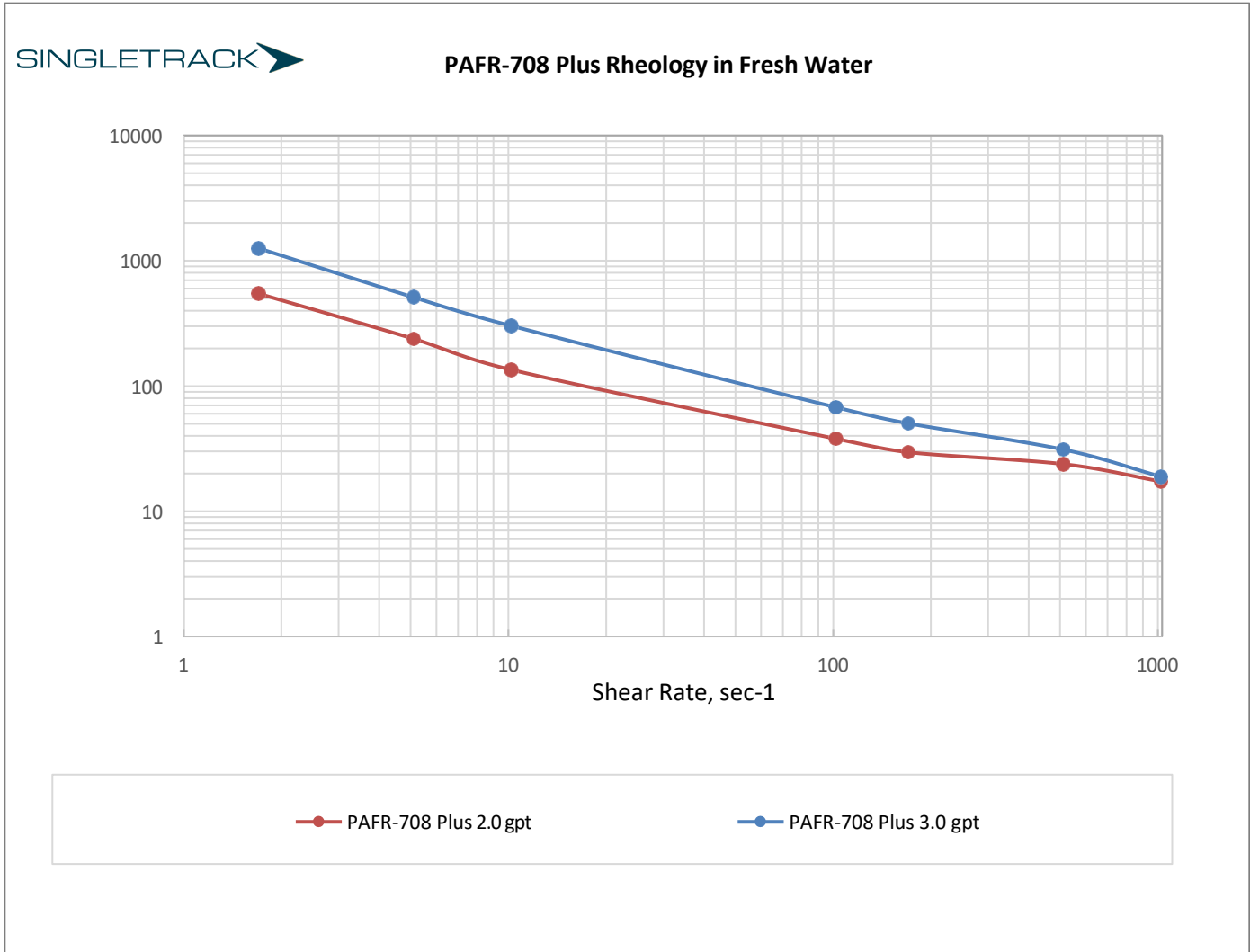


Figure 3. PAFR-708 Plus Rheology Data in Fresh Water (Ofite900 Model R1B1 Configuration)