

# HEG-FL15

## Technical Data Sheet

Our next-generation friction reducer (FR) is a groundbreaking advancement in oil and gas friction reduction technology. This patented FR is produced through a unique gel polymerization process, resulting in a significantly higher molecular weight than current market alternatives. This increased molecular weight greatly enhances the molecule's performance, allowing for a reduction in the overall polymer used. Additionally, our innovative manufacturing process enables the integration of other chemistries, further boosting versatility and effectiveness. This breakthrough not only optimizes performance but also provides cost efficiencies and environmental benefits by reducing polymer usage. Our next-generation FR sets a new standard in friction reduction, offering exceptional performance and versatility for the oil and gas industry.

### Case Study FR<sup>2</sup>

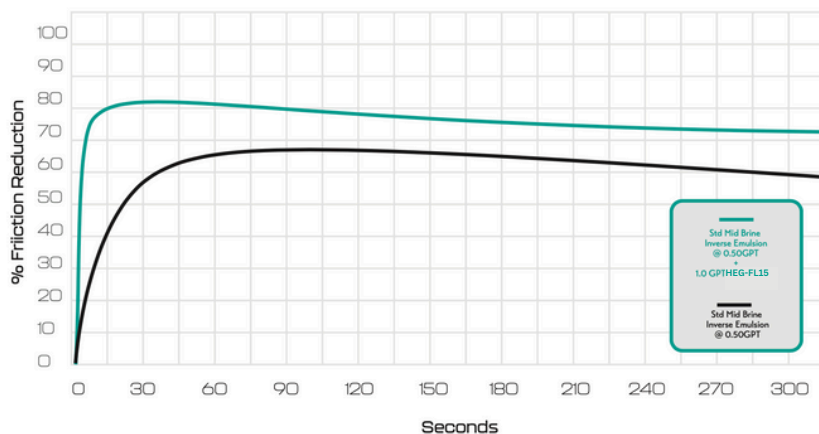
#### Case Study: K-AFR in Southeast New Mexico

**Background:** At a frac site in Southeast New Mexico, the primary friction reducer (FR) used was a high-viscosity HVFR inverse emulsion.

**Solution:** HEG-FL15, formulated with a preferred scale inhibitor and surfactant, was introduced to enhance performance and reduce costs.

**Results:** Using HEG-FL15 reduced the HVFR loading by 50%, while maintaining effective scale inhibition and surfactant performance. This led to a cost savings of over 35% without sacrificing performance.

**Conclusion:** HEG-FL15 significantly improved operational efficiency and cost-effectiveness, demonstrating its superior capabilities in friction reduction for the oil and gas industry.



#### Notes on testing:

- IE is well established Mid brine
- Water was synthetic Brine @ 35K TDS
- Brine had a Langolier scaling index of 3.5
- Temperature was 22C
- Results will vary depending on loading of HEG-FL15

### Directions for Use:

**HEG-FL15** may be used as a standalone friction reducer or blended with frac additives to generate effective traditional friction reducer booster. Contact your local HEG representative for a detailed analysis on dosage for your frac.

## GET HEG - FL15

### Physical Properties:

Appearance & Color	Clear / water white
Charge	Anionic
Stability	Infinite
Regulatory Status	Non Regulated
pH	6.5-7.5 (neutral)
Density	1.010-1.050
Packaging	Totes and bulk

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