



HEC - L403

VISCOSIFIER

Overview

A double strength, liquefied hydroxyethylcellulose (HEC) polymer, HEC - L403 viscosifier is suited for use in most completion and workover fluids. It provides a wide range of viscosities for fluid loss control, hole cleaning, spacer formulation, and gravel pack applications. HEC - L403 viscosifier also functions as a friction reducing agent. The liquid formulation provides superior dispersability characteristics and general ease of handling. It is degradable by time, oxidizing agents, enzymes, and temperatures greater than 275°F (135 °C).

Features and Benefits

- Provides a wide range of viscosities for fluid loss control, hole cleaning, and spacers
- Can function as a friction reducing agent
- Provides superior dispersing characteristics
- Easy to handle
- Stable to 250°F without temperature extender

Applicable Information

HEC - L403 viscosifier is a versatile product that can be used in all types of clear fluids for rheological modifications, hole cleaning, and fluid loss control. It provides excellent friction reduction for coiled tubing operations and is useful over a wide range of pH levels. HEC - L403 viscosifier is readily removed with acid treatment and is easily handled.

Physical Properties

Appearance	Tan liquid
Odor	Bland
Specific Gravity	0.95
Flash Point	> 212 °F (>100 °C)
Water Solubility	Dispersible

Packaging Information

5 gallon pail, 32 per pallet

Recommended Treatment

The recommended treatment is as necessary for viscosity development (usually 0.25 to 1.0 gal/bbl in normal applications). One gallon of HEC - L403 viscosifier contains 40% by weight HEC polymer. Special procedures may be required for densities greater than 12.0 lb/gal. Consult a TETRA representative for specific recommendations.

Safety and Handling

Avoid skin and eye contact, inhalation or ingestion. For skin contact, wash with soap and large quantities of water. For eye contact, flush with large quantities of water. Use properly designed respirator if adequate ventilation is not available. Refer to the Safety Data Sheet for specific details.

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