

### PRODUCT BULLETIN

# HEC (Hydroxyethylcellulose)

(HEC) Hydroxyethylcellulose is a non-ionic water-soluble polymer designed specifically to increase the viscosity of water-based fluids used in workover and completion operations. The resulting polymer solutions are clear, viscous and residue-free.

### **Typical Physical Properties**

Appearance	Off-white free flowing powder
Mole substitution degree, M.S	1.8 – 2.0
Solution viscosity, cps *	4000
Moisture content, % max.	10.0
pH, 1% solution	6.0 – 8.5
Bulk density (kg/m³)	450 - 550
*Measured by Brookfield viscometer, at 25°C, 1% aqueous solution	

## **Application**

HEC is used to viscosify single salt CaCl<sub>2</sub> brines and all mono-valent-salt brines such as NaCl, NaBr, KCl, KBr, and NH<sub>4</sub>Cl.

Oilfield fluids containing HEC exhibit high apparent viscosity, high yield point and low fragile gel strength. Its shear-thinning behavior known as pseudoplasticity help both increase penetration rates under high shear and provide excellent suspending action for optimum hole cleaning under low shear while viscosity is regained.

#### Recommended Handling

All personnel handling this material must handle it as an industrial chemical, wearing protective equipment and observing the precautions as described in the Material Safety Data Sheet (MSDS).

#### Packaging and Storage

Packed in 25 kgs or 50 lbs paper sacks.

Store in dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and /or stacking.

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