

Gelling Agent KWC010

1. Introduction

GeLock-F is an aqueous-based gel formed from synthetic polymer and organic crosslinkers and is used for water control in naturally fractured reservoirs. It can be applied to both injectors and producers, where a high water-cut is attributed to production through fissures or micro-fractures.

Gelling Agent KWC010 is a modified polyacrylamide synthetic polymer that can be cross-linked with crosslinkers KWC016 and KWC017 to form a gel with high viscosity.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KWC010	White Solid	1.30-1.50	Soluble	-	Eyes, Skin	None	6.0-8.0 (1 wt.%)

3. Chemical Properties and Application

KWC010 is an anionic polyacrylamide containing salt-resistant groups on the polymer backbone. It therefore has superior salt-tolerance and can be prepared using brine with TDS<10000 mg/L.

KWC010 contains amide groups, which can be cross-linked with crosslinkers KWC016 and KWC017 at certain temperature to form a high-viscosity gel to block the fissures and micro-fractures. KWC010 has high molecular weight and high viscosity as aqueous solution, which minimizes its loss into the formation matrix. The GeLock-F water shut-off systems composed of KWC010, KWC016 and KWC017 to be applied to the formation temperature of 175°F-300°F.

4. Treatment

0.3-0.7 wt.% of KWC010 is generally used to prepare the GeLock-F fluids.

5. Packaging

KWC010 is supplied in plastic-lined bags with net weight of 25 KG/bag.

It should be stored in shaded areas with good ventilation.