

Primary Crosslinker KWC016

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.

The crosslinking package composed of primary crosslinker KWC016 and secondary crosslinker KWC017, which crosslink with gelling agent KWC010 to form gel with high viscosity for water shut-off treatment of oil and gas wells including both producers and injectors.

2. Physical Properties and Hazards

Additive	Form	Specific Gravity	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KWC016	White Solid	1.23-1.43	Soluble	280	Eyes, Skin	Fire	7.0-10.0 (10 wt.%)

3. Chemical Properties and Application

KWC016 aqueous solution will react with secondary crosslinker KWC017 at certain temperature to generate a composite crosslinker package.

The composite crosslinker package will crosslink with gelling agent KWC010 to form high viscosity gel called GeLock-F for shut-off water flow in fissures or fractures of the reservoir.

The GeLock-F water shut-off system, mainly composed of KWC010, KWC016, and KWC017, can be applied to formation temperature range from 175°F-300°F.

4. Treatment

KWC016 is usually prepared as a 10 wt.% aqueous solution in the field before use. 0.5-1.5 wt% of the 10 wt.% KWC016 aqueous solution is generally enough to prepare the proper GeLock-F system.

5. Packaging

KWC016 is supplied in plastic-lined bags with net weight of 25 KG/bag.

It should be stored in shaded areas with good ventilation.