

Secondary Crosslinker KWC017

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
KWC017	White Solid	0.97-1.17	Soluble	182	Eyes, Skin	None	4.5-5.5 (5 wt.%)

3. Chemical Properties and Application

KWC017 aqueous solution reacts with primary crosslinker KWC016 at a certain temperature to generate crosslinker package. Crosslinker then is crosslinked with 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 plugging system, mainly composed of KWC010, KWC016, and KWC017, can be applied to formation temperatures ranging from 175°F-300°F.

4. Treatment

KWC017 is usually prepared as a 5 wt.% aqueous solution in the field before use.

1.0-3.0 wt% of the diluted KWC017 (5 wt.% KWC017 aqueous solution) is recommended in preparation of GeLock-F systems.

5. Packaging

KWC017 is supplied in galvanized iron drums with net weight of 200 KG/drum.

It should be stored in shaded areas with good ventilation.