

# Guar Gelling Agent KHF021

## 1. Introduction

Gelling Agent KHF021 is a high-yielding dry guar product for continuous or batch mixing of fracturing fluids. Its hydration rate is faster compared to conventional guar and is easier to disperse and hydrate in water.

## 2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Health Hazard	Physical Hazard	pH
KHF021	White powder	1.35-1.55	Soluble	Eyes, nose, throat	Fire, dust, water slick	6.5-7.0 (0.6%)

## 3. Chemical Properties and Application

Slurry based (diesel or other oils) guar products are typically hazardous to environment. KHF021 is a specially treated dry powder of guar that delivers faster hydration rate and higher yielding values after hydration. This higher yield guar generally provides much better crosslinking properties (viscosity) than conventional guar products, allowing much lower gel loading and leads to better fracture conductivity.

Together with crosslinker, activator, and the delaying agent, the gelling agent KHF021 provides wide range of delay time and rheological property at temperature and shear. The delay time can vary from 0~6 minutes and the fluid are stable up to 150°C.

The high temperature stabilizer KHF005 can be used to prevent degradation of fracturing fluids at temperatures greater than 200°F (93°C).

## 4. Treatment

The 20-40 lbs/1,000 gal gel loading is generally required to get enough viscosity to initiate the fracture and transport the proppant into the fracture. The gel loading is dependent on the formation bottom hole temperature. Typically, higher the temperature, higher is the gel loading required to achieve the required viscosity.

## 5. Packaging

KHF021 is supplied in plastic-lining bags with net weight of 25 kg/sack or 900 kg/jumbo bag. It should be stored in shaded areas with good ventilation. Keep it away from high temperature, humidity and direct sunlight.