

No Polymer Residue. Cleaner Breaks.

KAPPA *jel*

LOW RESIDUE
FRACTURING FLUID SYSTEM

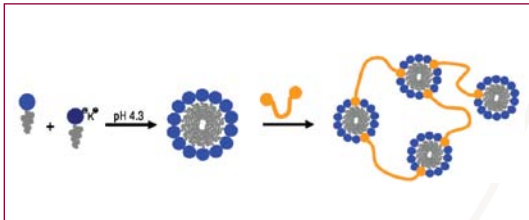
**A New Generation in Surfactant-Based
Fracturing Fluid Technology**

Pride *by* Performance.



Sanjel

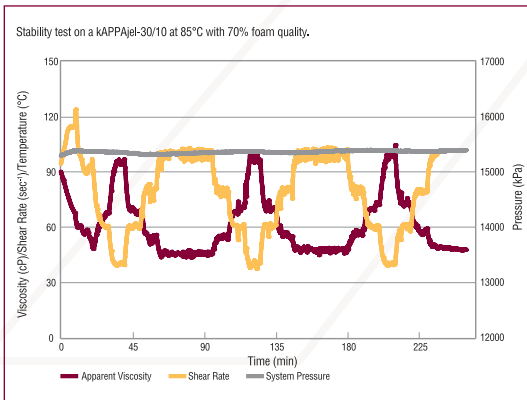
**Sanjel introduces
kAPPAjel,
a field-proven
surfactant-based
fracturing fluid system
with excellent thermal
stability and high base
fluid viscosity.**



kAPPAjel's network formation

System Rheology

Stability test on a kAPPAjel-30/10
at 85°C (185°F) with 70% foam quality



Fracturing Fluid Technology

Common fracturing fluid systems use a polymeric gelling agent that can be cross-linked to give high viscosity fluids for well stimulation. Once broken, these polymers leave behind an insoluble residue that can block formation pores and result in reduced hydrocarbon flow to the well bore. In contrast, surfactant-based fracturing systems use aggregates of small molecules to generate viscosity and break to produce soluble components that are easily removed from the well bore and formation.

The Next Generation

The kAPPAjel fracturing system marks a new generation in surfactant-based fracturing fluid technology. The robust nature of the kAPPAjel chemistry is derived from a complex mixture of water soluble surfactants and associative thickeners that results in cleaner breaks and avoids the possibility of formation damage from polymer residue. kAPPAjel offers reliable field performance up to 100°C (212°F) and can be adapted to meet varying field conditions such as water quality, temperature, and shear regime.

Features & Benefits

- Uses a blend of surfactants and associative thickeners as viscosifying agents.
- Surfactant-based fracturing system leaves no polymer residue in the formation.
- Can be pumped on the fly – no hydration unit required, reduces footprint of equipment on-site.
- System is not shear sensitive, maintains performance over time.
- Excellent thermal stability up to 100°C (212°F).
- N₂- energized fluid delivers robust performance under field conditions.

Worldwide Innovation, Commitment, Performance, and Results.

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