ViscoGen™

Crosslinked acidizing fluid for use in wells with BHST of up to 340°F (171°C)

Applications

- Used as a viscosifying agent or friction reducer for 15 to 28% HCl
- Friction reducer for acid when used at relatively low dosages of 1 to 2 gal/1,000 gal (1 to 2 L/m³)

Features and Benefits

- Viscosity is generated in situ and therefore minimizes added frictional pressures (i.e., horsepower) and the high cost for obtaining a live acid crosslinked fluid.
- System components consist of a cationic, high-molecular-weight polyacrylamide copolymer, buffer, and crosslinker.
- ViscoGen fluid includes an iron-control agent designed so that crosslinking does not occur until the acid reaches a pH of 2.5 to 3; it breaks upon reaching a pH of greater than 5.
- Crosslinked gelled acid is a thick-lipping natural fluid that is intended to block wormholes, which reduces the loss of acid effectiveness by controlling viscosity and therefore yields a more unified fracture geometry and more conductive fracture.
- Cross-linking lowers fluid leak-off to the formation, by controlled viscosity.
- Acid penetrates deeper in the formation before spending, which increases acid efficiency.
- Insoluble fines are reduced by acid solubility.

ViscoGen™ Crosslinked Acidizing Fluid

Specifications

WGA-35LC

Appearance	Cloudy, nearly colorless liquid
Specific gravity	1.01 to 1.05
Density	8.41 to 8.75 lb/gal
pH (neat)	3.5 to 5.5
Freezing point	32°F (0°C)

WPA-555L

Appearance	Clear liquid
Specific gravity	1.2 to 1.3
Density	10.0 to 10.8 lb/gal
pH (neat)	< 1.0

WXL-119L

Appearance	Clear, yellow-green liquid
Specific gravity	1.25 to 1.30
Density	10.41 to 10.8. lb/gal
pH (neat)	< 1.0

WIC-640

Appearance	White to off-white powder
Bulk density	60 to 64 lb/ft^3
pH (10%)	5.0 to 8.0