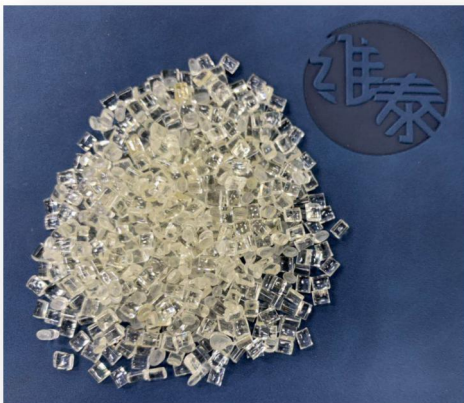


Degradable Frac Diversion System

ISO 9001
BUREAU VERITAS
Certification

Vertechs VD series degradable frac diversion system is designed to divert fluids during hydraulic fracturing within frac stage. VDP and VDB help create more stimulated reservoir volume by temporarily plugging and unlocking perforation clusters, the engineered polymer particles and high stress perf balls divert fluids to higher stress regions for increased fracture stimulation within each stage. All diversion materials then degrade at downhole temperatures and conditions, restoring full fracture conductivity.

VDP Degradable Diversion Particles



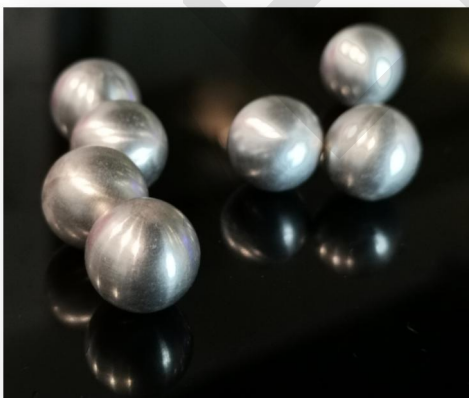
Applications

- Hydraulic fracturing, acidizing
- Divert among clusters within fracturing stage
- Temporarily sealing of unexpected natural fractures
- Refrac

Features

- Fresh water or produced water dissolvable
- Hold differential pressure up to 5,800psi (40MPa)
- Temperature rating 284 deg F (140 degC)
- Customized degradation time & particle size
- Fully degradable

VDB Dissolvable Diverter Balls



Applications

- Hydraulic fracturing, acidizing
- Divert among clusters within fracturing stage
- Temporary plugging of perf clusters
- Refrac

Features

- Fresh water or produced water dissolvable
- Pressure rating up to 10,000psi (70MPa)
- Temperature rating 302 deg F (150 deg C)
- Customized degradation time & ball size
- Fully dissolvable