

POLYPAC ELV

POLYPAC* ELV low-viscosity polyanionic cellulosic polymer (PAC) is used primarily as a fluid-loss reducer.

POLYPAC ELV polymer is a high-performance product, readily dispersible in water-base drilling fluids ranging from fresh to saturated salt water. POLYPAC ELV polymer is primarily used in weighted systems to avoid an uncontrollable viscosity build-up.

Typical Physical Properties

Physical appearance	Free flowing, white powder
Specific gravity	1.5 – 1.6
pH (1% solution)	6.0 – 8.5
Solubility.....	Soluble in fresh water to saturated brines

Applications

POLYPAC ELV polymer is used to control fluid loss in freshwater, seawater, salt and KCl drilling fluids, while providing supplemental shale inhibition and lubricity. It forms a thin, resilient low-permeability filtercake that minimizes the potential for differential sticking.

Because of its extremely low viscosity, POLYPAC ELV polymer can be used at higher concentrations than either regular POLYPAC polymer or POLYPAC UL polymer to provide additional benefits in HTHP fluid-loss control, shale control and lubricity with minimal viscosity increase. This allows systems that depend solely on POLYPAC ELV polymer to tolerate higher levels of low-gravity solids (LGS).

The properties of the POLYPAC ELV polymer make it ideally suited for drilling high-angle, extended-reach wells through reactive shales, particularly when combined with a highly shear- thinning rheology control polymer, such as DUO-VIS* polymer. POLYPAC ELV polymer is the preferred fluid loss agent for the GLYDRIL* system, as well as in other non-dispersed drilling fluid systems such as POLY-PLUS* systems and saturated salt systems.

POLYPAC ELV polymer resists bacterial attack and does not require a biocide or preservative.

In freshwater fluids, normal concentrations range from 0.53 to 5.1 lb/bbl (1.5 to 14.5 kg/m³). In sea-water and salt water systems, concentrations will range from 2.1 to 6.0 lb/bbl (6 to 17 kg/m³) to realize maximum benefit for fluid loss, shale inhibition and lubricity.

Advantages

- Excellent fluid-loss additive and filtercake quality enhancer for use in non-dispersed systems
- Provides shale control and lubricity with minimal viscosity increase
- Resists bacterial attack, no biocide or preservative is needed
- Suitable for extended reach drilling and deepwater drilling when used in combination with DUO-VIS polymer
- Effective across a wide pH range

Limitations

- Circulating temperature stability of approximately 300°F (149°C)
- Effective in systems with total hardness level <1000 mg/L (as calcium, but can be precipitated in conditions of high hardness and high pH)

Toxicity and Handling

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions as described in the Material Safety Data Sheet (MSDS).

Packaging and Storage

POLYPAC ELV polymer is packaged in 50-lb (22.7-kg) multi-wall, paper sacks.

Store in a dry location away from sources of heat or ignition, and minimize dust.



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