

M-I PAC UL

M-I PAC* UL polyanionic cellulose is a low-viscosity, tech-grade fluid-loss-control polymer. It is designed for situations where filtration control is needed with only minimal increases in rheology.

M-I PAC UL polymer will perform well in all brine applications, especially saltwater-base fluids. M-I PAC UL polymer may be used at all densities in either dispersed or non-dispersed systems. M-I PAC UL polymer will encapsulate solids to control dispersion of active shale.

Typical Physical Properties

Physical appearance.....	Cream-colored, free flowing powder
Specific gravity.....	1.5 – 1.8
pH.....	6.5 – 8.0

Applications

M-I PAC UL polymer controls fluid loss in freshwater, seawater, KCl and salt water. M-I PAC UL additive aids in the formation of a tough, thin filtercake to minimize the potential for differential sticking.

Recommended treatment for M-I PAC UL polymer is from 0.5 to 3.0 lb/bbl (1.5 to 9.0 kg/m3) depending on the water type and the salt level to control fluid loss.

M-I PAC UL polymer will be useful in areas where the generation of viscosity build-up should be avoided, but filtration control is required.

A concentration of 2.5 lb/bbl (7 kg/m3) of M-I PAC UL polymer in fresh water will provide a viscosity of 15 cP and only a 5-lb/100 ft2 (2.5 Pa) yield-point value.

M-I PAC UL polymer will create an envelope around exposed shales and cuttings for encapsulation that reduces dispersion and improves wellbore integrity. Encapsulation protects the shale from exposure to water that tends to destabilize the shale.

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Advantages

- Effective in controlling filtration with minimal increase in rheology
- Functions at all pH ranges
- Environmentally acceptable
- Resists bacterial attack, requiring no biocides or preservatives
- Performs in a wide variety of waters

Limitations

- Contains salt as a by-product during processing
- High hardness (>1000 mg/L) and high alkalinity will require treatment to neutralize before using
- Temperature limit of 250°F (120°C); when approaching this limit use PTS-200* thermal stabilizer
- Has lower dissolved solids than POLYPAC* or POLYPAC UL additives

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

M-I PAC UL polymer is packaged in 25-kg (55.1-lb), multi-wall, paper sacks.

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

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