

Description

KAR-PAC LV is a premium grade low molecular weight polyanionic cellulose (PAC) used to control fluid loss in all types of water-base drilling fluids.

Typical Properties

Appearance : white powder
pH (1% solution) : 7 - 9
Bulk Density : 600 - 800 kg/m³

Features and Benefits

KAR-PAC LV imparts superior fluid loss control properties to the drilling fluids with minimum effect on viscosity.

KAR-PAC LV is effective in all types of water-base drilling fluids and is particularly useful in saturated salt systems.

KAR-PAC LV inhibits hydration and dispersion of water sensitive shales and hence contributes to borehole stability and performance of solids-control equipment.

KAR-PAC LV has a good tolerance to divalent ions and is effective over a wide pH range.

KAR-PAC LV is not susceptible to bacterial attack.

KAR-PAC LV systems are nontoxic and are especially suited for use in environmentally sensitive areas.

Application

KAR-PAC LV can be used as fluid loss control agent in all types of the water-base drilling fluids.

Limitations

KAR-PAC LV is effective in drilling fluids with a total hardness less than 1,000 mg/l (as calcium).

KAR-PAC LV loses its effectiveness under the combined effect of high hardness and high pH as it is precipitated by calcium. pH can be reduced using sodium bicarbonate and/or citric acid.

KAR-PAC LV is thermally stable up to 150 °C (300 °F). The temperature stability can be increased by 20 °C using KAR-POLY TS temperature stabilizer.

Treatment

Normal treatment levels range from 0.25 to 3.0 lb/bbl (0.7 to 8.6 kg/m³). The concentration will vary depending on the amount of "active" solids being drilled, composition of the drilling fluid and drilling conditions encountered. Since the polymers are continually depleted by adsorption, it is essential to compensate the loss of these polymers.

As a rule of thumb, when the density in the active system is increased with barite KAR-PAC LV must be added simultaneously in concentrations 1-1.5 lb KAR-PAC LV to 1 ton of barite, to maintain available polymer in the system.

KAR-PAC LV is added to the system uniformly and slowly through the mud hopper. Rapid addition may result in "fish eyes" and incomplete solution of the polymer.

Packaging

KAR-PAC LV is supplied in 25 kg (55 lb) multi-wall paper sacks.