

### **Description**

KAR-PAC R is a premium grade, high molecular weight polyanionic cellulose (PAC) used to control fluid loss and viscosity in all types of water-base drilling fluids.

### **Typical Properties**

Appearance : white powder  
pH (1% solution) : 7 - 9  
Bulk Density : 500 - 800 kg/m<sup>3</sup>

### **Features and Benefits**

KAR-PAC R is used as both viscosifier and fluid loss control agent in all types of water-base drilling fluids. It is particularly useful in saturated salt systems.

KAR-PAC R inhibits hydration and dispersion of water sensitive shales and hence contributes to borehole stability.

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

KAR-PAC R improves the performance of solids-control equipment reducing the dispersion of drill cuttings.

KAR-PAC R is not susceptible to bacterial attack.

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

### **Application**

KAR-PAC R can be used as fluid loss reducer and viscosifier in all types of water-base drilling fluids.

### **Limitations**

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

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

### **Treatment**

Normal treatment levels range from 0.25 to 2.0 lb/bbl (0.7 to 5.7 kg/m<sup>3</sup>). The concentration will vary depending on the amount of 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.

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