

## ZI-CHEM 5B10

### Viscosity Modifier/Drilling Mud Additive

#### HIGHLIGHTS

ZI-CHEM 5B10 is a proprietary blend of dispersing agents designed for use in mineral processing including the control and reduction of viscosity in process streams.

It is also a very cost-effective viscosifier for low salinity clear-water drilling operations. Its shear-thinning properties ensure maximum power at the bit under high shear, and excellent carrying capacity under low shear, yet still allows easy solids removal in the mud pits.

ZI-CHEM 5B10 reduces power losses at points of high shear, especially at the drill bit and other restrictions such as the pump discharge, drill collars, etc. The polymer structure also helps reduce turbulence, thereby reducing erosion and wash-outs in weak structures.

ZI-CHEM 5B10 performs several functions including that of a dispersant and surfactant on the slurry streams.

#### TYPICAL PROPERTIES

- Appearance: Colorless liquid
- Specific gravity: 1.1 – 1.3
- pH : 3.0 – 5.0
- Flash point: None
- Freeze Point: None

#### PRIMARY APPLICATIONS

ZI-CHEM 5B10 is used at concentrations of about 0.05 to 0.3% dry on the dry weight of the solids present. The minimum viscosity for each system may be found by running a dispersant demand curve. Small increments of ZI-CHEM 5B10 are added until the product viscosity no longer drops significantly.

#### FEEDING & CONTROL

ZI-CHEM 5B10 should be diluted in a site mixing tank with raw water then injected to the system using a chemical metering pump with liquid end constructed of suitable materials. These include PVC, polypropylene, viton, Teflon and stainless steel.

Your ZI-CHEM technical field specialist will recommend the most appropriate dosage for your particular application on an ongoing basis.

#### THE BENEFITS

- Increased process flow
- Reduced power losses
- Increased production rates
- Reduced pumping costs
- Reduced torque demand on equipment

#### COMMON APPLICATIONS

- Water based drilling fluids
- Minerals processing industry

#### PACKAGING

- 250 kg Drums
- 1000 kg IBC Tanks

#### HANDLING & SAFETY

ZI-CHEM maintains a database of material safety data sheets (MSDS) on all our products.

These contain health & safety information to assist in the safe and appropriate chemical handling, ensuring the protection of personnel. offer detailed site surveys to review your situation

