PRODUCT BULLETIN

NewZan[™] D

VISCOSIFIER



PRODUCT DESCRIPTION

NewZan $^{\text{M}}$ D viscosifier is a high molecular weight polysac-charide polymer produced from bacterial action. It has been processed to allow for rapid dispersion into water-based systems.

BENEFITS

NewZan D viscosifier is effective at low polymer concentrations. Partial or total replacement of gel with NewZan D polymer will result in a reduction of the total amount of material required for viscosity control. The low solids content of NewZan D viscosified fluids minimizes formation damage from solids blockage. As NewZan D viscosified fluids are extremely low shear thinning, these fluids exhibit low effective viscosity at the bit, improving penetration rates and increased viscosity in the annulus, optimizing hole cleaning. These fluids' shear thinning nature and lower solids content reduce the pressure losses in the circulating system.

APPLICATION

NewZan D viscosifier is used in all types of water-based drilling fluids including those with high salt and calcium content. This product is particularly suited for use in areas with high transportation costs as material volumes are greatly reduced in comparison to gel viscosified fluids. In workover and completion applications, NewZan D viscosified fluids' low solids content interacts minimally with production formation.

TREATMENT RECOMMENDATION

Normal concentrations range from 0.2-2 lb/bbl. NewZan D viscosifier is surface-treated to allow for rapid dispersion while mixing. The product should be added slowly through the hopper with maximum shear to ensure proper hydration. NewZan D hydration may be slightly inhibited in saltwater. This can be eliminated by prehydrating the NewZan D powder in freshwater before adding it to the system. NewZan D viscosified fluids may be susceptible to bacterial degradation. For normal use in drilling fluids, additions of a preservative may be needed. At a high pH (10.0 and above), it is increasingly sensitive to calcium and may be precipitated out of the system. NewZan D viscosifier is effective to 300°F (149°C). The temperature limitation can be extended to 325°F (163°C) with NewStabil™ fluid stabilizer or other temperature extenders.

TYPICAL PHYSICAL PROPERTIES

Appearance......White, free-flowing powder

HANDLING AND STORAGE

NewZan D viscosifier is extremely slippery when wet. Use caution if spilled. Minimize exposure to dust. Store in a cool, dry, well-ventilated area away from ignition sources and strong oxidizing agents. Keep container tightly closed. Use appropriate hygiene, clothing and personal protective equipment suitable for work being done. Review the SDS thoroughly before using this product.

PACKAGING

NewZan D viscosifier is available in 25-pound (11.3-kilogram) multi-walled bags.

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