

ISO-SEAL™

RECOMMENDATIONS

Pretreat the active system with 5-20 lbs/bbl of ISO-Seal™. In the event of seepage loss mix 10-120 lbs/bbl in the slugging pit and pump 20-50 bbl sweeps every stand to mitigate seepage losses.

In severe cases of seepage loss or losses of more than 30 bbls an hour consider mixing in slugging pit 50-200 lbs/bbl ISO-Seal $^{\text{TM}}$ and sweeping the hole or spotting the pill in the wellbore.

For more severe loss circulation events ISO-Seal™ can be used in conjunction with Ven-Fyber Seal™ products, Remedy™ and Quick-Squeeze™ to provide additional sealing effects and enhanced well bore stability.

BENEFITS

ISO-Seal™ is highly dispersible in oil based fluid systems and mixes easily thru the mud-hopper.

ISO-Seal™ promotes thin, tough, lubricated filter cake development.

ISO-Seal™ provides effective isolation of fracture tips improving wellbore integrity.

ISO-Seal™ is a high performance seepage losss additive with minimal to no effect on drilling fluid rheology.

ISO-Seal™ is effective at lowering HTHP fluid loss in non-aqueous drilling fluids.

 $\mathsf{ISO}\text{-}\mathsf{Seal}^\mathsf{TM}$ is effective at sealing fractured shale, chalk and carbonate formations.

GENERAL INFORMATION

Researched and Developed in the enventives labs by the experts in lost circulation and wellbore stability ISO-Seal is our seepage loss control additive and moderate loss circulation additive tailored to perform in todays synthetic base oil fluids and conventional oil based muds. Although developed with oil and synthetic fluids in mind ISO-Seal is compatible and can be mixed in all types of drilling and completion fluids both oil and water based.

ISO-Seal™ is a blend of our performance proven surface modified cellulosic fyber technologies and non asphaltic plugging agents specifically engineered to bridge and seal permeable formations. ISO-Seal™ contains compressible carbon particles that are extremely resilient. The compresive nature of the particles allows them to conform to the fractures and isolate the fracture tips. These properties make ISO-Seal™ extemely effective as a wellbore strengthening additive for building a stress cage. ISO-Seal™ is effective for use in invert, oil, or synthetic based drilling fluid systems. ISO-Seal™ can be used to control seepage in minor to severe lost circulation zones. ISO-Seall™ has minor to no affect on the rheological properties of drilling fluid systems. ISO-Seal™ is effective at reducing torque and drag and increasing lubricity of the fluid system. ISO-Seal™ reduces the potential for differential sticking of the drill string.

ISO-Seal™ is effective at both preventing loss circulation from occuring and in treating loss circulation after it has occured. ISO-Seal™ can be used in combination with other lost circulation materials to control partial to severe losses and to increase wellbore stability.

ISO-Seal $^{\text{TM}}$ acts as a drilling fluid conditioner in synthetic based fluids providing for more stable rheological properties and emulsion stability.

TYPICAL PROPERTIES

Composition : Fybers and Non Asphaltic Particles

Form : Powder Color : Gray to Tan

Bulk Density (lb/cu.ft): Compacted 43 lb/ft

pH : 4.0 - 10.0

Solubility: : water or oil, partially soluble

PACKAGING

ISO-Seal $^{\text{TM}}$ is packaged in 25 lb. Kraft paper bags, 50 bags per pallet. Special packaging requirements will be quoted upon request.

PRECAUTIONS

See the Safety Data Sheet for more detailed information concerning storage, handling, transportation, disposal and safety requirements.