

**TECHNICAL BULLETIN** 

## **BIODRILL FM400**

Environmentally friendly fluid loss control additive for the oil & gas industry

Borregaard's BioDrill FM400 is a temperature stable and contaminant tolerant filtration control additive.

BioDrill FM400 controls filtration in water-based drilling muds at bottom hole temperatures up to 205°C (400°F). Water-based mud systems naturally form a clay-based filter cake at the interface between the formation of rock strata and the drilling fluid.

BioDrill FM400 filtration control agent decreases the permeability of this filter cake, preventing migration of drilling mud to sensitive formationproducing zones. The treated filter cake also prevents migration of formation fluids into the drilling fluid.

BioDrill FM400 offers excellent performance at temperatures up to 205°C (400°F), particularly in calcium and chloride contaminated systems (e.g. in gypsum/dolomite or salt formations, or sea water).

## DOSAGE

The recommended treatment dosage with **BioDrill FM 400** is in the range of 2 – 10 lb/bbl (5.7 – 28.6 kg/m3).

BioDrill FM400 can be used in fresh water, brackish water and sea water, as it is chloride tolerant. It also functions well in systems based on lime or gypsum. The product is very easy to use. No caustic soda or potash needs to be added, and it solubilises readily in water. No biocide addition is required.

Material Safety Data Sheet and further chemical or physical data are available upon request.

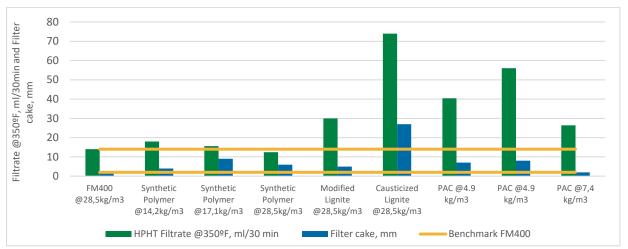
The BioDrill products are part of the OSPAR List of Substances Used and Discharged Offshore which are Considered to Pose Little or No Risk to the Environment (PLONOR)





## HPHT Fluid Loss Control Evaluation

The test serves to evaluate a product's HPHT filtration control properties. Results are shown in Figure 1. and Figure 2: **Rheology results** of HPHT test.



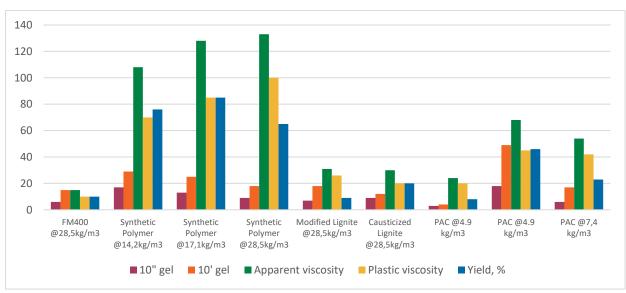


Figure 1. HPHT Fluid Loss evaluation

Figure 2: Rheology results of HPHT test

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Page 2/2

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