



DrisTROL™ OBM Fluid Loss Additive

DrisTROL™ OBM Fluid Loss Additive is a low-cost polymeric fluid loss additive designed for reducing high temperature high pressure (HTHP) fluid loss in diesel, mineral and synthetic oil-based drilling fluids. DrisTROL™ OBM Fluid Loss Additive is a white free flowing powder which is compatible with other commonly used materials in non-aqueous fluids.

Advantages:

- Mixes easily
- Reduces HTHP fluid loss
- Improves rheological properties
- More cost effective than most polymeric fluid loss additives
- May be used in conjunction with other fluid loss additives such as amine treated lignite and Gilsonite®¹
- Compatible with other commonly used materials in non-aqueous fluids
- Temperature stable up to ±149 °C (300 °F) with results depending on fluid conditions. Pilot testing is recommended.

Application:

DrisTROL™ OBM Fluid Loss Additive is usually added in 1-4 ppb for HTHP control and may be mixed at the rig site or at the mud plant. The use of this additive can improve rheological properties such that other additives specifically used to prevent barite sag are reduced or eliminated all-together. If other rheological additives are to be added it is suggested that the fluid be pilot tested first for any compatibility issues that may arise.



Properties

Appearance: White, free flowing powder

Mixing Requirements

Mix through a standard mud hopper

Handling

For specific instruction on handling, refer to the MSDS

Packaging

50 lb bags 40 bags to the pallet

1. Registered trademark of American Gilsonite Company Corporation Oklahoma

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Drilling Specialties Company does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.



DrisTROL™ OBM Fluid Loss Additive

Table 1 DrisTROL™ OBM Fluid Loss Additive in a 12.0 ppg 70/30 OWR Laboratory Diesel-Based OBM

Additive	BM	(1)	(2)	(3)	(4)	(5)	(6)
Base Mud, bbl	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DrisTROL™, ppb	---	2.0	4.0	---	---	---	---
Styrene/Acrylate Polymer, ppb	---	---	---	2.0	4.0	---	---
Amine Treated Lignite, ppb	---	---	---	---	---	6.0	10.0
Test results @ 66 °C (150 °F) after rolling 16 hours @ 149 °C (300 °F)							
600 RPM	94.1	118.5	144.4	121.3	165.7	117.6	132.9
300 RPM	56.0	71.9	88.4	72.5	100.8	72.1	82.6
200 RPM	45.5	56.9	70.1	56.1	77.1	58.0	66.6
100 RPM	28.4	36.5	45.0	35.4	48.7	38.2	44.2
6 RPM	7.5	9.7	12.4	9.1	12.6	11.9	14.2
3 RPM	6.5	8.2	10.2	7.5	10.5	10.0	12.4
Plastic Viscosity (PV)	38.1	46.6	56.0	48.8	64.9	45.5	50.3
Yield Point (YP)	17.9	25.3	32.4	23.7	35.9	26.6	32.3
Gels	6.6/8.0	8.5/10.4	10.2/12.2	7.8/9.4	10.5/12.4	9.5/11.1	11.7/13.4
Electrical Stability @ 48.9 °C (120 °F)	598	602	566	594	587	607	611
HTHP FL @ 149 °C (300 °F)/500 psi	16.2	9.0	5.6	8.0	4.8	16.2	13.4
Filter Cake in inches	6/32	2/32	2/32	4/32	2/32	6/32	4/32



Procedure: After mixing the OBM sample, shear for 60 minutes on a Silverson mixer at 6000 rpm until an initial ES in the range of 400 – 600 volts is achieved. To a 1-bbl equivalent aliquot of base mud, add each product sample at the appropriate dosage. Mix on a Multi-Mixer for 15 minutes. Hot roll each fluid for 16 hours at 300°F. Let cool and stir on a Multi-Mixer for 5 minutes. Perform rheology and ES at 150°F. Run HTHP filtration test at 300°F. Record fluid loss and thickness of filter cake after 30 minutes.



DrisTROL™ OBM Fluid Loss Additive

Table 2 DrisTROL™ OBM Fluid Loss Additive in a 12.0 ppg 70/30 OWR Laboratory Mineral Oil-Based OBM

Additive	BM	(1)	(2)	(3)	(4)	(5)	(6)
Base Mud, bbl	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DrisTROL™, ppb	---	2.0	4.0	---	---	---	---
Styrene/Acrylate Polymer, ppb	---	---	---	2.0	4.0	---	---
Amine Treated Lignite, ppb	---	---	---	---	---	6.0	10.0
Test results @ 66 °C (150 °F) after rolling 16 hours @ 149 °C (300 °F)							
600 RPM	64.8	86.5	105.6	83.3	107.1	76.5	92.1
300 RPM	37.8	51.4	63.5	49.0	63.8	45.2	55.1
200 RPM	31.3	42.5	51.0	38.8	51.9	37.0	44.5
100 RPM	18.7	26.5	32.3	23.7	32.1	22.5	28.2
6 RPM	4.3	6.5	8.2	6.1	7.9	6.1	7.5
3 RPM	3.5	5.3	6.6	4.9	6.4	5.0	6.3
Plastic Viscosity (PV)	27.0	35.1	42.1	34.3	43.3	31.3	37.0
Yield Point (YP)	10.8	16.3	21.4	14.7	20.5	13.9	18.1
Gels	4.4/5.2	5.7/6.5	6.8/8.0	5.4/6.4	6.8/7.9	5.7/6.6	6.5/7.3
Electrical Stability @ 48.9 °C (120 °F)	545	519	506	571	522	543	495
HTHP FL @ 149 °C (300 °F)/500 psi	15.2	9.0	5.0	9.2	6.2	14.2	12.2
Filter Cake in inches	6/32	3/32	1/32	4/32	2/32	6/32	6/32





DrisTROL™ OBM Fluid Loss Additive

Table 3 DrisTROL™ OBM Fluid Loss Additive in a 14.0 ppg 75/25 OWR Laboratory C16-18 Oil-Based OBM

Additive	BM	(1)	(2)	(3)	(4)	(5)	(6)
Base Mud, bbl	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DrisTROL™, ppb	---	2.0	4.0	---	---	---	---
Styrene/Acrylate Polymer, ppb	---	---	---	2.0	4.0	---	---
Amine Treated Lignite, ppb	---	---	---	---	---	6.0	10.0
Test results @ 66 °C (150 °F) after rolling 16 hours @ 149 °C (300 °F)							
600 RPM	77.0	98.4	128.4	94.6	107.1	90.7	99.6
300 RPM	41.1	55.3	72.4	51.5	59.2	49.3	58.0
200 RPM	32.8	44.6	59.5	38.5	46.2	40.2	47.6
100 RPM	18.9	25.8	33.9	21.8	26.2	23.2	29.7
6 RPM	3.0	4.7	6.3	3.9	4.7	4.5	7.1
3 RPM	2.4	3.3	4.8	2.7	3.4	3.2	5.7
Plastic Viscosity (PV)	35.9	43.1	56.0	43.1	47.9	41.4	41.6
Yield Point (YP)	5.2	12.2	16.4	8.4	11.3	7.9	16.4
Gels	3.1/3.9	4.2/5.3	5.6/6.8	3.7/5.2	4.4/5.6	4.3/5.7	6.3/8.5
Electrical Stability @ 48.9 °C (120 °F)	758	833	758	856	874	871	872
HTHP FL @ 149 °C (300 °F)/500 psi	4.8	2.8	1.6	3.0	2.2	5.8	3.2
Filter Cake in inches	2/32	1.5/32	1/32	2/32	1.5/32	4/32	2/32

This publication is for informational purposes only. It should not be used in place of the advice of a professional engineer. The user acknowledges that all technical information contained in this bulletin is given for convenience only and is accepted and used at the user's sole risk. Before using this product, the user is advised to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the user's ultimate responsibility to ensure that the product is suited and the information is applicable to the user's specific application. Drilling Specialties Company does not make any warranties, and expressly disclaims all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of trade or course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort, or otherwise, in connection with the use of the information contained herein or the product itself. Revised 2021 EW