

AMC MAXI VIS™

VISCOSIFIERS



Description

AMC MAXI VIS™ is a mixed-metal oxide (MMO) product that provides an enhanced rheological profile and stability for exceptional hole cleaning and suspension in a package that is easy to design, mix and maintain. AMC MAXI VIS™ creates a highly shear-thinning fluid with a low plastic viscosity (PV), high Yield Point (YP) and flat gels. AMC MAXI VIS™ provides excellent solids suspension and easily screens at any flow rate.

Application

With its shear-thinning rheological profile, AMC MAXI VIS™ exhibits exceptional hole cleaning and cuttings suspension properties and minimises the formation of cuttings beds. The properties of the system make it suitable for a variety of drilling applications, especially HDD drilling. Fracture losses are effectively minimised by the extremely high viscosity and nearly static fluid on the sides of the wellbore. The unique flow profile stabilises mechanically weak and poorly consolidated formations. High viscosity at low shear rates results in a static layer of fluid on wellbore walls which helps to minimise erosion from the flow of fluid. In addition, the system requires a lower pump rate which further improves the stability in fractures of difficult formations. It also reduces torque and drag.

Typical Physical Properties

Appearance:	White to off-white powder
Specific gravity:	2.6 – 3
pH (1500 ppm solution):	10 – 11
Solubility:	Partially soluble

Recommended Treatment

Add 1.5 – 4 kg / m³ (0.5 – 1.4 lb / bbl) of AMC MAXI VIS™ to a 25 – 40 kg / m³ (8.75 – 14 lb / bbl) prehydrated bentonite mix.

Additives to Avoid

Due to the electrostatic nature of bentonite and AMC MAXI VIS™ interactions, ionic additives must be strictly avoided. This will result in a collapse of rheology. The following typical ionic additives must not be applied to the AMC MAXI VIS™ system: Polyacrylates, AMC PACs™, thinners, deflocculants, lignites and lignosulfonates.

Advantages

- Excellent hole cleaning and solids suspension
- Highly shear thinning
- Exceptional performance in high angle/horizontal wells, unconsolidated formations and lost circulation zones
- Low working dosage results in an extremely low environmental impact
- Highly cost effective
- Easy to use.

Guidelines for Field Use

When using AMC MAXI VIS™ for the first time in the field, it is important to inform field staff about the unique nature of the fluid. Compared to conventional bentonite fluids, AMC MAXI VIS™ fluids appear extremely viscous when static. Handlers may assume the viscosity is too high to be pumped but this is unlikely because of the extremely shear-thinning nature of the fluid. Dilution of the fluid with water would affect the unique properties and their advantages (i.e. the high YP/PV ratio).

Before building a AMC MAXI VIS™ mud in the field, always conduct lab pilot tests in order to check the quality of the bentonite, the compatibility of the additives and appropriate dosages. Pilot tests should also be conducted prior to the introduction of any new additives into the fluid.

Please Note: Several factors will dictate the most appropriate concentration rate. Please contact your nearest AMC representative for optimum results.

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