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Product Data

NUMBER 4363

NATROSOL® 210 HHX
Thickener for Low/High Density Brines and Low pH Fluid Systems

Introduction
NATROSOL® 210 HHX is a nonionic, fast hydrating, and ultra-high viscosity HydroxyEthyl Cellulose (HEC). It is designed specifically to thicken a variety of water-based oilfield servicing fluids. Natrosol 210 HHX is used as a viscosity and rheology modifier, water retention agent, stabilizer, and suspending agent in a variety of water-based fluid systems where a nonionic material is desired. Unlike other types of HEC, the solubility of Natrosol 210 HHX is pH independent. It exhibits a quick and high viscosity in a wide range of pH and fluid density environments.

Natrosol 210 HHX is an off-white free flowing powder that dissolves in cold or hot water to produce viscous solutions. It is particularly designed without surface treatment that retards the polymer hydration. It is also characterized by a very fine particle size distribution for quick dissolving (Figure 1). Because of its fine particles size distribution and non-retarded nature, Natrosol 210 HHX should be added to water-based systems slowly enough to prevent fisheyes/lump formation.

Figure 1

Comparative hydration rates between NATROSOL 210 HHX & NATROSOL HIVIS

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Hydration Time (minutes)

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400
Apparent Viscosity, cP

NATROSOL 210 HHX
NATROSOL HIVIS

2 lbs/bbl in Freshwater

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