Masurf® D-125

Dispersing Agent

Overview

MASURF D-125 is a highly efficient, 25% active, low viscosity dispersing agent for water-borne coating systems, especially suited for the dispersion of inorganic pigments.

MASURF D-125 is a non-discoloring high performance aqueous anionic polymer dispersant, deflocculant and rheology modifier. D-125 effectively suspends many types of solids, including particulates, pigments, carbon black, abrasives, and fillers. Use MASURF D-125 to produce stable long-term suspensions over a broad range of solids loading levels, and to generally improve the storage stability of aqueous emulsions. MASURF D-125 prevents scale and hard water deposits and effectively functions as an anti-redeposition agent.

Use MASURF D-125 in Paints, Coatings, Resins, Cosmetics and Adhesive formulations. Effective in detergent formulations including Automatic Dish. Use in Liquid Suspension Fertilizers, Fertilizer Granulation and Pesticide Suspensions. Other applications include Pottery and Ceramic Slips, Dye Concentrates and Boiler Water Treatment.

Masurf D-125 is available in 275 gallon/2500 pound net weight totes tanks, 55 gallon/500 pound net weight drums, and 5 gallon/40 pound net weight pails.

Typical Properties

Classification	Aqueous polymer dispersant
Charge	Anionic
Physical form	Clear colorless to pale amber liquid
Activity	24-26%
Solids	24-26%
Specific gravity (25°C)	1.16±0.04
Viscosity (25°C)	<400cps (Brookfield)
pH	10.0±1.5
Flash point	>200°F (PMCC)
Shipping	Non-Red Label

Handling Information

Refer to the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

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Low Concentration Suspensions

MASURF D-125 produces stable suspensions at low concentrations for an increase in concentration of powders, granular and fibrous materials in aqueous dispersion formulations, increasing the working time significantly. The illustration below highlights the performance of MASURF D-125 at only 100ppm active:

Initial Dispersion

The photos illustrate the effectiveness of MASURF D-125 at stabilizing dilute suspensions of powders.

Each cylinder contains 1 gram of iron oxide in 200ml of water, with the cylinder on the left containing 100ppm active MASURF D-125. Each cylinder was shaken 100 times, then left undisturbed for 24 hours.

After 24 hours, the cylinder containing Masurf D-125 exhibits minimal sedimentation, while the control cylinder has clearly settled.

Additionally, MASURF D-125 exhibits anti-soil redeposition performance. Note that the MASURF D-125 cylinder exhibits minimal residue adhering to the glass above the surface of the liquid, whereas the control cylinder exhibits significant accumulation of deposits.

Dispersion @ 24 hrs.

High Concentration Dispersions

MASURF D-125 provides exceptional stability and viscosity control in high concentration dispersions. MASURF D-125 produces stable high concentration dispersions with low viscosities, reducing significantly energy requirements in the manufacture of high solids dispersions. The illustration below highlights the performance of MASURF D-125 at only 0.175% active:

The photo illustrates the effectiveness of MASURF D-125 at reducing the viscosity of high concentration dispersions.

The inverted beaker on the left contains 56% EPK clay in deionized water. The resulting mixture is a rigid paste.

The beaker on the right contains 70% EPK clay in deionized water with 0.175% active MASURF D-125. The resulting mixture is a pourable liquid.