

• HH-2011X Dispersing agents

It can improve the wetting and dispersing properties of solids or liquids in water, reduce the time required for the dispersion process, and make the materials stably dispersed in water. The amount of addition depends on the particle size and specific surface area of the organic phase. The amount of effective dispersant added is 20% to 50% of the specific surface area of the pigment after dispersion, when used to disperse the liquid organic phase.

The use of HH®2011X dispersant and small molecule HH®2000 (mass ratio of 1:1 to 3:1) can produce a suspension with small particle size, narrow distribution and good storage stability.

• Product Data

Composition:

Carboxylic acid modified polymer solution.

Typical Properties:

Appearance: beige transparent liquid

Ionic type: anionic

Viscosity (mPa·s): 1500~2000 (25°C)

Effective content: 65%

PH: 7±1

Solvent: water, ethanol, butyl ether

Molecular weight: 19000

Acid value: 60

*.The values indicated in this data sheet describe typical properties and do not constitute specification limits.

• Applications

Special Features and Benefits:

HH®2011X dispersant is a poly(butyl acrylate-co-styrene-b-acrylic acid) block polymer, in which poly(butyl acrylate-co-styrene) is the hydrophobic segment and polyacrylic acid is the hydrophilic segment.

In water, similar to small molecule surfactants, dissolved hydrophobic-hydrophilic

block polymers will self-assemble to form micelles. When the concentration of hydrophobic-hydrophilic block polymers is low, the polymer solution is transparent;

when the concentration of hydrophobic-hydrophilic block polymers is high, the polymer solution is turbid. Due to the large molecular weight of the polymer, it takes longer to form micelles than small molecule surfactants.

Studies have shown that hydrophobic-hydrophilic dispersants that form micelles in water with weak binding forces are best for dispersing particles with low surface polarity such as carbon black and organic pigments.

HH®2011X dispersant is adsorbed on the surface of the organic phase dispersed by mechanical force through the hydrophobic groups in the molecule, and the carboxylic acid ions in the molecule provide steric hindrance and electrostatic repulsion, so that the organic phase can be stably suspended in water.

• Recommended Use

It is used to produce water-based general color paste, water-based industrial paint, inkjet ink, pesticide suspension concentrate, PE wax suspension concentrate, etc.

Note: This instruction manual is for reference only and does not have any guarantee properties. Please test its applicability in advance.

• Addition amount

Organic pigments: 20~30%

Iron oxide pigments: 5~10%

Carbon black: 20~30%

Titanium dioxide: 5%~7%

PE wax powder: 5~10%

*. The above data are empirical dosages, and the optimal dosage needs to be determined through a series of tests.

• Instructions for use

Mix HH®2011X dispersant and water evenly, adjust the pH value of the aqueous solution to about 7 ± 1 , then add the material to be dispersed, disperse evenly and grind on a machine.

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