

AFCONA-4009



Chemical Composition

Modified polyurethane polymer.

Product general description

A high molecular weight polymeric dispersant for preventing pigment flocculation.

Product Properties

AFCONA-4009 is a high molecular weight dispersant primarily used for stabilizing inorganic pigments and certain organic pigments. The main advantage is its broad compatibility; it is compatible with almost all solvent-based systems, including long oil alkyds, nitrocellulose paints, polyurethane paints, thermoplastic acrylics and various baking paints.

Compared to other AFCONA PU dispersants, the viscosity reduction property of AFCONA-4009 is not particularly strong, which is due to its more polar structure. However, this is not necessarily a disadvantage because not all mill bases need good viscosity reduction. For example, this applies to certain universal color pastes used for tinting in automotive refinish paints.

The characteristics and recommended systems of AFCONA-4009 are as follows:

- 1) Given its excellent price/performance ratio, AFCONA-4009 is the most suitable product for upgrading conventional wetting and dispersing agents without significantly increasing costs.
- 2) AFCONA-4009 can be used as a post-additive to correct floating and flooding defects in all solvent-based topcoats. When used as a co-grinding dispersant in the mill base, it also provides good anti-floating and anti-flooding properties. For more difficult-to-disperse systems such as epoxy, polyurethane and baking paints, even better results can be achieved by combining it with AFCONA-4050 (at 30-40% of the AFCONA-4009 dosage).
- 3) Pigment concentrates prepared with AFCONA-4009 offer several unique advantages, such as resistance to drying out, broad compatibility, and cost-effectiveness.

Note: AFCONA-4009 may become slightly hazy when stored at or below 5°C, but this will not influence the quality.

Product Specification

Non-volatile matter	58 - 61% (150°C, 0.5h)
Solvent	Propylene glycol methyl ether acetate/Sec-butanol/Butyl Acetate
Density	1.00 - 1.02 g/cm ³ (20°C)
Acid Value	10 - 17 mg KOH/g
Amine Value	8 - 15 mg KOH/g
Gardner color	Max.5
Flash point	24°C
Appearance	Clear pale yellowish liquid (25°C)

Addition and dosage

Calculation method for the required amount of active ingredient of dispersant on pigment:

TiO₂: 2-3%

Other inorganic pigments: 2-5%

Organic pigments: 20-40%

Carbon blacks: 20-50%

Incorporation

AFCONA-4009 should be incorporated in the mill base before adding the pigments.

Storage

AFCONA-4009 shall be stored in cool and dry place away from direct sunlight. Shelf-life is 5 years from the date of manufacturer, if kept in original and unopened container. The expiring date is indicated on the package.

Packaging

25kg and 200 kg non-returnable containers

For product safety information: please refer to the product SDS.

AFCONA ADDITIVES

Web Site : www.afcona.com

This information and all further technical advice are based on our present knowledge and experience. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used. We reserve the right to make any changes according to science and technological progress or further developments.

This version replaces all previous ones.