

AFCONA-4000



Chemical Composition

Modified polyurethane polymer.

Product general description

A high molecular weight polymeric dispersant for de-flocculation of all types of pigments.

Product Properties

AFCONA-4000 is the high molecular weight version of AFCONA-4200 and is a polyurethane dispersant based on an innovative concept. It incorporates AFCONA's latest steric hindered long-chain structure and a newly designed anchoring end group, providing excellent stability for inorganic and organic pigments, as well as carbon black.

AFCONA-4000 has the following properties:

- 1) It is compatible with nearly all solvent-based resin systems, including thermoplastic acrylic (TPA) and systems containing cellulose acetate butyrate (CAB).
- 2) It is particularly suitable for dispersing high-grade carbon black and can also enhance the whiteness of titanium dioxide. This advantage is especially evident in systems based on acrylic resins.
- 3) It strongly reduces the viscosity of pigment pastes.
- 4) Compared to certain earlier grades, AFCONA-4000 offers excellent resistance to yellowing at high temperatures.

AFCONA-4000 is recommended for:

- 1) Thermoplastic acrylic resin systems (may contain CAB) and other high-performance industrial paint systems based on acrylic structures, e.g., automotive OEM coatings, automotive refinish coatings, plastic coatings, etc.
- 2) Polyurethane systems.
- 3) Baking paints based on alkyd, acrylic and saturated polyester resins.

Note: AFCONA-4000 may become slightly hazy when stored below 5°C. This does not affect product quality or dosing accuracy.

Product Specification

Non-volatile matter	64 - 66% (150°C, 0.5h)
Solvent	Butyl Acetate/Propylene glycol methyl ether acetate/Sec-butanol
Density	0.98 - 1.00 g/cm ³ (20°C)
Amine value	10 - 15 mg KOH/g
Gardner color	Max.4
Flash point	24°C
Appearance	Colorless, transparent to slightly yellowish liquid (25°C)

Addition and dosage

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

TiO ₂	: 2 - 3%
Other inorganic pigments	: 2 - 4%
Organic pigments	: 20 - 40%
Carbon blacks	: 20 - 60%

Incorporation

AFCONA-4000 should be incorporated in the mill base before adding the pigments.

Storage

AFCONA-4000 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

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This version replaces all previous ones.