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Efka® FA 4620

general

low-molecular-weight dispersing agent

- suitable for use in solvent- and water-based as well as solvent-free systems
- very efficient in wetting and dispersing fillers, extenders and inorganic pigments, particularly TiO_2
- reduced viscosity
- increased pigment and filler loading
- shorter dispersing time, increased mill efficiency

Efka® FA 4620 can be used as sole dispersing agent together with resins, inorganic pigments and fillers. When combined with high-molecular-weight dispersants it can also be used for systems with organic pigments.

chemical nature

acidic polyether

Properties

physical form

clear brownish liquid

storage

Efka® FA 4620 should be stored in a cool dry place.

typical properties (no supply specification)

density at 20 °C (68 °F)	~ 1.25 g/cm^3
acid value	~ 290 mg KOH/g
color (Gardner)	≤ 8

Application

Efka® FA 4620 is suitable for a broad range of resins. It is recommended for:

- automotive refinish coatings (inorganic particles, metallics)
- water-based industrial coatings
- solvent-based industrial coatings
- coil coating, especially TiO_2
- composites (unsaturated isophthalic polyester [UPE] combinations)
- gelcoats, sheet- and bulk-molding compounds
- water-based architectural coatings
- solvent-based architectural coatings (high-solids and long-oil alkyds)

Efka® FA 4620 can be used for systems ranging from nitrocellulose to high-solids alkyds, unsaturated polyester systems (gelcoats, sheet- and bulk-molding compounds), coil coating and water-based systems (in which neutralization to above pH 7 is recommended).

Efka® FA 4620 is successfully used to stabilize TiO_2 in many coating systems in conjunction with pigment concentrates stabilized with high-molecular-weight dispersants. The good blue undertone it gives to TiO_2 is retained after storage of the paint, thus eliminating the effect of "yellowing" or loss of blue undertone.

recommended concentrations

Appropriate use levels depend on pigment or filler, dispersing medium and letdown composition. A ladder study should be performed to determine the optimum use level. Efka® FA 4620 should always be incorporated before addition of pigment or filler.

For use in composites, add Efka® FA 4620 directly to resin while stirring. Then add fillers or extenders.

fillers or extenders	0.5 – 1.0 % on filler weight
TiO_2	2.0 – 3.0 % on pigment weight
other inorganic pigments	2.0 – 5.0 % on pigment weight

The minimum required amount of dispersant can be estimated from the specific surface area or oil absorption value of the pigment. The calculated amount can be used as a starting point for ladder studies (10 – 20 % of Efka® FA 4620 on the oil absorption value of the inorganic pigment).

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Validity
This Technical Data Sheet is valid for all versions of the Efka® FA 4620.

Safety
When handling these products, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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