

# Efka<sup>®</sup> FA 4620

(old : Efka<sup>®</sup> 5220)



## general

low-molecular-weight dispersing agent

Efka<sup>®</sup> FA 4620 belongs to the family of low-molecular-weight wetting and dispersing agents. It is well suitable for use in solvent- and water-based as well as solvent-free systems.

It is very efficient in wetting and dispersing fillers, extenders and inorganic pigments, particularly TiO<sub>2</sub>. This results in:

- reduced viscosity
- increased pigment and filler loading
- shorter dispersing time, increased mill efficiency

Efka<sup>®</sup> 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

### shelf life

Efka<sup>®</sup> FA 4620 should be stored in a cool dry place. When kept in original unopened containers, it has a total shelf life of 4 years from the date of manufacture.

### typical properties (no supply specification)

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

## Application

Efka<sup>®</sup> 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<sub>2</sub>
- 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<sub>2</sub> in many coating systems in conjunction with pigment concentrates stabilized with high-molecular-weight dispersants. The good blue undertone it gives to TiO<sub>2</sub> 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 <sub>2</sub>	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).

### Safety

When handling this product 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.

® = registered trademark, ™ = trademark of BASF Group, unless otherwise noted