

Efka[®] PX 4360

Product description	High-molecular-weight dispersing agent
	Efka [®] PX 4360 is made by the Controlled Free Radical Polymerization (CFRP) technology, which allows producing polymeric dispersants with defined polymer architecture and a low poly-dispersity index.
	Efka [®] PX 4360 offers high efficiency in stabilizing organic pigments and carbon blacks and demonstrates a broad compatibility with many resin systems. The robust stabilization and broad resin compatibility make Efka [®] PX 4360 suitable for use in resin-free pigment concentrates (RFPC).
Key benefits	■ Excellent color development with organic pigments
	■ Compatibility with a broad range of solvent-based resin systems
	■ Strong viscosity reduction at high pigment concentration during the grinding stage
	■ Optimal value in use
Chemical nature	Acrylic block copolymer

Properties

Physical form	Clear, red-brown liquid	
Technical data (not supply specification)	Solvent	1-methoxy-2-propyl acetate
	Density	at 20 °C (68 °F) ~ 1.03 g/cm ³
	Active ingredients	~ 50 %
	Amine value	~ 13 mg KOH/g
	Color (Gardner)	≤ 11

Application

Efka® PX 4360 is suited to be used in resin-free pigment concentrates (RFPC) for a wide range of solvent-based industrial coatings, including 2K polyurethanes, acrylics, and polyesters.

Efka® PX 4360 can also be used as a single dispersant for direct grinding of the pigments or with resin-containing pigment concentrates (RCPC).

Guideline formulations for resin-free pigment concentrates (RFPC):

	Paliotol Yellow L 2140 HD Sun Chemical	Colour Black FW 200 Orion
Colour Index (Pigment)	Yellow 139	Black 7
Efka® PX 4360	18.0	25.2
1-methoxy-2-propyl acetate	37.0	60.8
Pigment	45.0	14.0
	100.0	100.0

The addition levels are recommended for starting formulations. For optimum results a ladder study should be performed in the customer specific binder formulation.

Care should be taken when working with epoxy-resins, especially in combination with lighter colors, as discoloration might occur.

Recommended concentrations

Calculation method to estimate the minimum required amount of dispersing agent on pigment (solid dispersant on ...):

Inorganic pigments	10–15 % on oil absorption value
Organic pigments (green, blue, violet)	15–30 % on BET value
Organic pigments (yellow, orange, red)	15–45 % on BET value
Carbon blacks (LCF)	15–20 % on DBP value
Carbon blacks (HCC)	40–50 % on DBP value

Efka® PX 4360 should be incorporated in the mill base before addition of the pigments.

Storage

Efka® PX 4360 should be stored in a dry and cool place.

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Validity

This Technical Data Sheet is valid for all versions of the Efka® PX 4360.

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.

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