

# Efka<sup>®</sup> PX 4300

## general

high-molecular-weight dispersing agent

Efka<sup>®</sup> PX 4300 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<sup>®</sup> PX 4300 is suitable for stabilizing pigments in solvent-based coatings. This results in:

- high color strength
- good stability against flooding, floating and flocculation
- strong viscosity-depressing effects

## chemical nature

acrylic block copolymer

## Properties

### physical form

clear brownish liquid

### storage

Efka<sup>®</sup> PX 4300 should be kept in a cool and dry place.

### typical properties (no supply specification)

solvent	1-methoxy-2-propyl acetate
density at 20 °C (68 °F)	~ 1.01 g/cm <sup>3</sup>
active ingredients	~ 80 %
amine value	~ 57 mg KOH/g
color	≤ 9

## Application

Efka<sup>®</sup> PX 4300 is suitable for high quality solvent-based coating systems where high performance of difficult organic pigments is needed, e.g., automotive coatings (OEM and refinish).

decorative coatings	industrial coatings	automotive coatings
not suitable	solvent-based 2-pack PUR	OEM: acrylic/melamine
	solvent-based 2-pack acrylics	OEM: polyester/melamine
	solvent-based NC	refinish: 2-pack PUR

Guideline formulations for resin-containing pigment concentrates (RCPC):

	<b>Colour Black FW 200 Evonik</b>	<b>Carbon Black MA 100 Mitsubishi</b>	<b>Heliogen® Blue L 7087 BASF</b>
Colour Index	Black 7	Black 7	Blue 15:3
Efka® PX 4300	7.00	2.50	7.19
Synthoester 186 HS (Synthopol)	40.00	–	–
Setal 84 XX-70 (Nuplex Resins)	–	50.00	–
Laropal® A 81 pigment	– 12.50	– 10.00	34.50 23.00
1-methoxy-2-propyl acetate	40.50	37.50	31.31
butylglycol acetate	–	–	4.00
	100.00	100.00	100.00

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

#### recommended concentrations

Calculation method to estimate the minimum required amount of active dispersant on pigment:

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 4300 should be incorporated in the mill base before adding the pigments.

## Contacts worldwide

## Asia

BASF East Asia Regional Headquarters Ltd  
45/F, Jardine House  
No. 1 Connaught Place  
Central Hong Kong  
China  
[formulation-additives-asia@basf.com](mailto:formulation-additives-asia@basf.com)

## North America

BASF Corporation  
11501 Steele Creek Road  
Charlotte, NC 28273  
USA  
[formulation-additives-nafta@basf.com](mailto:formulation-additives-nafta@basf.com)

## Europe

BASF SE  
Formulation Additives  
67056 Ludwigshafen  
Germany  
[formulation-additives-europe@basf.com](mailto:formulation-additives-europe@basf.com)

## South America

BASF S.A  
Rochaverá - Crystal Tower  
Av. das Nações Unidas, 14.171  
Morumbi - São Paulo-SP  
Brazil  
[formulation-additives-south-america@basf.com](mailto:formulation-additives-south-america@basf.com)

**Validity**

This Technical Data Sheet is valid for all versions of the Efka® PX 4300.

**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.

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

[www.basf.com/formulation-additives](http://www.basf.com/formulation-additives)