Efka® PX 4340

(old : Efka® 4340)

◻▪BASF
We create chemistry

general	high-molecular-weight dispersing agent

Efka® PX 4340 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 4340 is suitable for stabilizing pigments in solvent-based high-performance coatings such as automotive OEM and refinish coatings. It has an excellent affinity for organic pigments, especially where high transparency is required.

- improves color development and transparency with organic pigments
- highly suitable for optimum dispersion of transparent iron oxides
- viscosity reduction at high pigment concentration at the grinding stage
- gives excellent gloss to the final coating

chemical nature	acrylic block copolymer

Properties

physical form	clear yellow to brownish liquid
shelf life	Efka® PX 4340 should be stored in a dry and cool place. When kept in original unopened containers, it can be stored for up to 4 years from the date of manufacture.

typical properties (no supply specification)

solvent	methoxypropanol
density at 20 °C (68 °F)	~ 1.00 g/cm³
active ingredients	~ 55 %
amine value	~ 4 mg KOH/g
color	≤ 8

Application

Efka® PX 4340, due to the very wide compatibility in most current systems used in solvent-based coatings, is especially suitable for the production of Resin Minimal Pigment Concentrates (RMPC) in combination with a multi compatible dispersing resin.

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-minimal pigment concentrates (RMPC)

	Irgazin® DPP Cosmoray™ Orange	Irgazin® DPP Rubine TRI	Paliogen® Blue L 6470
Colour Index (Pigment…)	–	Red 264	Blue 60
Efka® 4340	8.10	2.10	6.90
Synthoester 186 HS (Synthopol Chemie)	30.00	40.00	–
Setal 173 VS-60 (Nuplex Resins)	–	–	37.40
pigment	20.00	15.00	24.00
1-methoxy-2-propyl acetate	41.90	42.90	–
xylene	–	–	15.85
butyl glycol acetate	–	–	15.85
	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 ingredients 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 4340 should be incorporated in the mill base before adding the pigments.