BASF
We create chemistry

Efka® PX 4703

general

100% active, high-molecular-weight dispersant

Efka® PX 4703 is made by Controlled Free Radical Polymerization (CFRP), which allows to produce polymeric dispersants with highly defined polymer structure and a low polydispersity index, offering the following benefits:

- 100% active dispersant
- high pigment loadings at low mill base viscosities
- very effective in UV-curable and in mild-solvent ink-jet systems
- excellently suited for UV-curable ink systems including UV-curable flexographic-, litho- and screen inks
- well suited for solvent-based resin free (RFPC) and resin containing pigment concentrates (RCPC) in a wide range of applications

chemical nature

polymer with pigment-affinic groups

Properties

physical form

brown, high viscous liquid

storage

Efka® PX 4703 should be stored in a cool dry place. Storage at temperatures below 10°C (50 °F) may lead to partial solidification. This has no influence on the quality of the product and can be reversed by heating to 35–40°C (95–102 °F).

typical properties

solid content	> 99 %
amine value	~ 56 mg KOH/g

Application

Efka® PX 4703 is a 100 % active dispersant with broad compatibility with pigments and different ink systems and it is particularly recommended for:

UV-curable	solvent-based
offset-inks	
inkjet-inks	inkjet inks (“strong solvent”)
flexographic inks	inkjet inks (“mild solvent”)

Efka® PX 4703 is excellent in stabilizing organic and inorganic pigments in low-viscosity systems based on acrylate-functional UV-monomers and in organic solvents.

Efka® PX 4703 shows excellent performance in resin-free (RFPC) and resin-containing pigment concentrates (RCPC) for a wide range of solvent-based industrial and automotive coatings.

recommended concentrations

Appropriate use levels depend on pigment selection, dispersing medium and let-down composition.

use levels for inkjet ink formulations:
20–90 % Efka® PX 4703 calculated on pigment load

use levels for UV-curable flexographic formulations:
2.5–10.0 % calculated on pigment load. Such dosage levels offer significantly reduced mill base viscosity and nearly Newtonian flow.

A ladder study should be performed to determine the optimum use level.
Efka® PX 4703 should always be incorporated before addition of the pigment.

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

North America
BASF Corporation
11501 Steele Creek Road
Charlotte, NC 28273
USA
formulation-additives-nafta@basf.com

Europe
BASF SE
Formulation Additives
67056 Ludwigshafen
Germany
formulation-additives-europe@basf.com

South America
BASF S.A
Rochaverá - Crystal Tower
Av. das Naçoes Unidas, 14.171
Morumbi - São Paulo-SP
Brazil
formulation-additives-south-america@basf.com

Validity
This Technical Data Sheet is valid for all versions of the Efka PX 4703.

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.