Dispex® Ultra PX 4565

Product description

High-molecular-weight dispersing agent

Dispex® Ultra PX 4565 is made with Controlled Free Radical Polymerization (CFRP) technology, which allows producing polymeric dispersants with defined block-polymer architecture and a low poly-dispersity index.

Dispex® Ultra PX 4565 offers high efficiency in stabilizing organic pigments and carbon blacks and shows strong viscosity reduction properties during milling. Its steric stabilizing block was designed to provide broad compatibility with many resin systems. Because of the robust pigment stabilization and broad resin compatibility, Dispex® Ultra PX 4565 is suitable for use in resin-free pigment concentrates (RFPC).

Key benefits

- Strong viscosity reduction during grinding, allowing high pigment loading
- Excellent color development and transparency
- Compatibility with a broad range of water-based resin systems
- Optimal value in use

Chemical nature

Acrylic block copolymer

Properties

Physical form

Clear, red-brown liquid

Technical data
(not supply specification)

Solvent	Water
Active ingredients	~ 40 %
Amine value	~ 11 mg KOH/g

Application

Dispex® Ultra PX 4565 was designed to have excellent compatibility with a broad range of water-based resins, including:

- Water-based acrylics
- Water-based 2K polyurethanes
- Water-based alkyds
- Thermosetting acrylic dispersions

Dispex® Ultra PX 4565 provides optimal results with a range of organic pigments and carbon blacks. Guideline formulations for resin-free pigment concentrates (RFPC):

	Heliogen Blue L 7085 Sun Chemical	**Colour Black FW 200** Orion
Colour Index (Pigment)	Blue 15:3	Black 7
Dispex® Ultra PX 4565	35.0	40.5
Water	29.0	39.3
DMEA (50% in water)		1.2
Foamstar® PB 2724	1	1
Pigment	35.0	18.0
	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 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	20–30 % on oil absorption value
Organic pigments (green, blue, violet)	15–30 % on BET value
Organic pigments (yellow, orange, red)	25–45 % on BET value
Carbon blacks (LCF)	15–20 % on DBP value
Carbon blacks (HCC)	50–80 % on DBP value

Dispex® Ultra PX 4565 should be incorporated in the mill base before addition of the pigments.

Storage

Dispex® Ultra PX 4565 may partly solidify when stored below 5 °C. Heat to 30-40 °C to reliquefy.

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Validity

This Technical Data Sheet is valid for all versions of the Dispex® Ultra PX 4565.

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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