

Dispex[®] CX 4325

(old : Dispex[®] HDN)



general

dispersing agent

Dispex[®] CX 4325 is a highly effective, low-viscosity dispersing agent for water-based coating systems, especially suitable for the dispersion of inorganic pigments.

Dispex[®] CX 4325 was developed to allow formulation of coating systems containing partly soluble, reactive pigments such as oxides, dioxides, carbonates and phosphates.

chemical nature

solution of an acrylic copolymer in water

Properties

physical form

hazy, slightly liquid

The hazy appearance is an inherent product property. It does not indicate the presence of undesired contaminants.

shelf life

Although Dispex[®] CX 4325 is freeze-stable it should be stored at temperatures above 5 °C (41 °F) to allow easy handling.

typical properties (no supply specification)

solvent	water
density at 20 °C (68 °F)	~ 1.20 g/cm ³
solid content	~ 30 %
viscosity at 20 °C (68 °F)	~ 400 mPa·s
pH	~ 7.2

Application

Dispex[®] CX 4325 is an ideal dispersing agent for a wide range of water-based coatings. The very special polymer backbone provides an extraordinary combination of properties, the hydrophobic character of the resin together with high efficiency as a dispersing agent which makes Dispex[®] CX 4325 especially suitable for high-performance water-based coatings where resistance to humidity is of prime importance. It also tolerates the presence of partly soluble pigments such as those commonly used in anticorrosion coatings which would normally lead to the instability of the liquid paint system.

Typical areas of use for Dispex[®] CX 4325 are exterior wood coatings and coatings on metal surfaces.

Dispex[®] CX 4325 is effective over a pH range of 5 – 11 and at temperatures exceeding 100 °C (212 °F).

incorporation

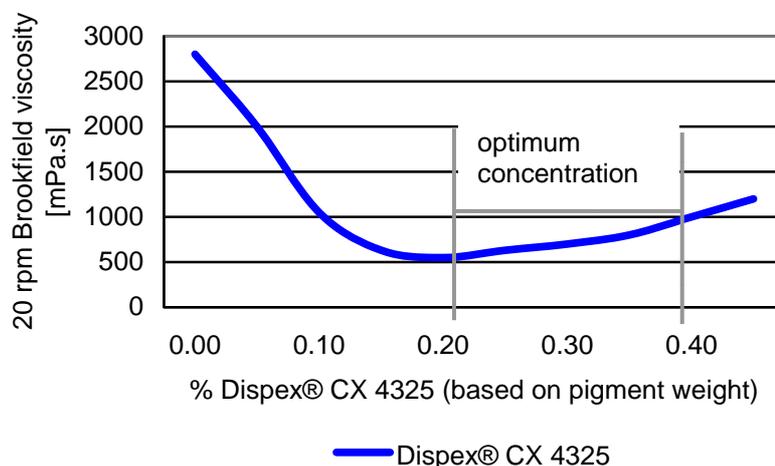
As opposed to adding the dispersing agent to a pigment slurry, the pigment should be added to heavily stirred water to which the dispersing agent had been added. In general, the pH of the final preparation should be in the region of 8.5 to obtain optimum dispersing efficiency.

The optimum amount of dispersing agent required to form a stable dispersion strongly depends on the pigment's chemical nature, the particle surface and shape. The polymer base of the latex also plays a very important part in the stability equation. In general, significant overdosing may deteriorate the coating's properties (e.g., water resistance) and generate an economic disadvantage. Likewise, insufficient dispersing agent will lead to instability on storage.

As with other dispersing agents and because of the batch-to-batch variations of a specific pigment or latex type, the formulator should use 1.5 – 2.0 times the determined optimum level of dispersing agent.

rheology curve of a pigment slurry
(65 % pigment solids)

coordinates; graph prepared with
GA40 data, placeholder



recommended concentrations

0.5–2.0 % on total pigment weight

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.

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