

Dispex[®] AA 4140

general

- derivative of a family of highly effective, low viscosity dispersing agents for water-based coating systems
- especially suitable for the dispersion of inorganic pigments and fillers

chemical nature

solution of a sodium salt of an acrylic polymer in water

Properties

physical form

straw-colored liquid

storage

although Dispex[®] AA 4140 is freeze-thaw stable it should be stored at temperatures above 5 °C (41°F) to allow easy handling.

typical properties

solvent	water
density at 20 °C (68 °F)	~ 1.3 g/cm ³
solid content	~ 43%
pH value	~ 8

Application

Dispex[®] AA 4140 is an ideal dispersing agent for a wide range of water-based coatings. It can be used as supplied. It is based on an organic polymer and provides improved storage stability of both pigment dispersion and formulated paint when compared with inorganic dispersing agents, e.g. polyphosphate products. There is little or no adverse reaction to high temperatures or pH changes. Dispex[®] AA 4140 is effective over a wide pH range of 5 – 12 and up to temperatures in excess of 100 °C (212 °F).

Dispex[®] AA 4040 is the ammonia neutralized version of the same polymer.

incorporation

Dispex® AA 4140 should be added under stirring before adding pigments or fillers to the grind. 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 role.

In general, underdosing of the dispersing agent will lead to insufficient stability of the pigment dispersions. Likewise to other dispersing agents the formulator should apply 1.5 – 2.0 times the determined optimum level of dispersing agent to avoid storage problems.

recommended dosage

0.5% - 2% on total pigment weight

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 Nações 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 Dispex AA 4140; Dispex AA 4140, Dispex AA 4140 AJ, Dispex AA 4140 AK, Dispex AA 4140 AS and Dispex AA 4140 NS

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.

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