

# Dispex<sup>®</sup> AA 4040

## 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 an ammonium salt of an acrylic polymer in water

## Properties

### Physical form

Straw-colored liquid

### Technical data

(not supply specification)

Active substance	BASF method	37.5 – 40.5 %
pH value	BASF method (20 °C, 100 % (m))	7.0 – 9.0
Viscosity, kinematic	(15 % sol) (25 °C)	2.5 – 5.5 mm <sup>2</sup> /s
Density	(20 °C)	~ 1.16 g/cm <sup>3</sup>
Solvent		Water

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## Application

Dispex® AA 4040 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.

Dispex® AA 4040 releases ammonia during the drying process and therefore has little impact on water- and alkali resistances of the dry film.

The use of Dispex® AA 4040 should be limited to pH 5 – 10.5 and temperatures lower than 70 °C due to potential loss of volatile ammonia.

Dispex® AA 4140 is the sodium neutralized version of the same polymer.

## Incorporation

Dispex® AA 4040 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

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## Storage

Although Dispex® AA 4040 is freeze-thaw stable it should be stored at temperatures above 5 °C to allow easy handling.

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### Validity

This Technical Data Sheet is valid for all versions of the Dispex® AA 4040.

### 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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