

# 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

### storage

although Dispex<sup>®</sup> AA 4040 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)	~ 1.16 g/cm <sup>3</sup>
solid content	~ 45%
pH value	~ 7.5

## Application

Dispex<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> AA 4040 should be limited to pH 5 – 10.5 and temperatures lower than 70 °C (158 °F) due to potential loss of volatile ammonia.

Dispex<sup>®</sup> 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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**Validity**

This Technical Data Sheet is valid for all versions of the Dispex AA 4040; Dispex AA 4040, Dispex AA 4040 AK, Dispex AA 4040 AS, Dispex AA 4040 EK and Dispex AA 4040 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**

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