

## Technical Data Sheet

Last revised: 01-2019

### DELTA-DC® 3590

**DELTA-DC® 3590** is a cost-effective polyacrylate-based high molecular weight dispersion control additive for aqueous **coatings** and **printing inks**. It prevents reflocculation of pigments through steric hindrance and therefore stabilizes the color strength and hue of pigments in pigment concentrates.

#### **Specifications:**

Composition	: Modified polyacrylate
Solvent(s)	: Water/TPM (Tripropyleneglycolmethylether)
Specific gravity @ 20°C	: ca. 1.04 g/cm <sup>3</sup>
Amine value	: 36-42 mg KOH/g
Acid value	: 4-8 mg KOH/g
Appearance	: Turbid and yellowish liquid
Active ingredients	: 41.5%

Methods of analysis can be received upon request

#### **Applications and usage:**

##### **Coatings**

**DELTA-DC® 3590** is a cost-effective high molecular weight dispersion control additive for enhancing the dispersion of organic/inorganic pigments and carbon blacks in aqueous media.

**DELTA-DC® 3590** is compatible with a wide range of resin and vehicle systems and considered suitable for VOC-free applications. It can be used in resin-containing as well as in resin-free applications to produce pigment concentrates for water-based coatings.

**DELTA-DC® 3590** stabilizes the pigment dispersion of all kinds of pigments and provides the following properties:

- Reduced viscosity of the mill-base leading to higher pigment loading
- Excellent gloss
- Flocculation stability
- Anti-flooding behavior
- Broader compatibility

**DELTA-DC® 3590** is pH-independent, completely water-soluble and does not require neutralization.

**DELTA-DC® 3590** should be incorporated in the mill-base before adding the pigments.

Inorganic pigments	: <u>10% of oil absorption value (solid form)</u>
Organic pigments	: <u>30-50% of BET value (solid form)</u>
Carbon blacks	: <u>25-30% of DBP value (solid form)</u>

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When used in resin-free pigment concentrates, the following addition levels are advised:

Inorganic pigments	:	<b><u>15-25% of oil absorption value (solid form)</u></b>
Organic pigments	:	<b><u>30-60% of BET value (solid form)</u></b>
Carbon blacks	:	<b><u>50-60% of DBP value (solid form)</u></b>

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### Printing Inks

**DELTA-DC® 3590** is a polymeric dispersant for enhancing the dispersion of organic pigments in aqueous media. This results in:

- Lower viscosity of concentrates and/or increased pigment loading
- Improved color strength, transparency and gloss of inks

**DELTA-DC® 3590** is pH-independent, completely water-soluble and does not need to be neutralized. It has no detrimental impact on the resistance properties of the dried film.

**DELTA-DC® 3590** has been developed for water-based pigment bases and printing ink formulations for flexographic application. It is considered suitable for VOC-free applications and can be used with a wide range of industry pigments and carbon blacks.

**DELTA-DC® 3590** is compatible with a wide range of resin/vehicle systems.

**DELTA-DC® 3590** should be incorporated in the mill-base.

Organic pigments : **25-50% of BET value (solid form)**

Carbon blacks : **20-30% of DBP value (solid form)**

In resin-free pigment concentrates, the optimal use level may be higher.

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### Safety and Handling:

**DELTA-DC® 3590** should be handled in accordance with good industrial practice. Detailed information can be found in the Safety Data Sheet

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### Storage:

**DELTA-DC® 3590** should be stored in a cool dry place. When kept in an original unopened container, it will keep up to 5 years from the date of manufacture. The production date is indicated on the container.

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### Packaging:

50 kg and 200 kg non-returnable Plastic containers.

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