

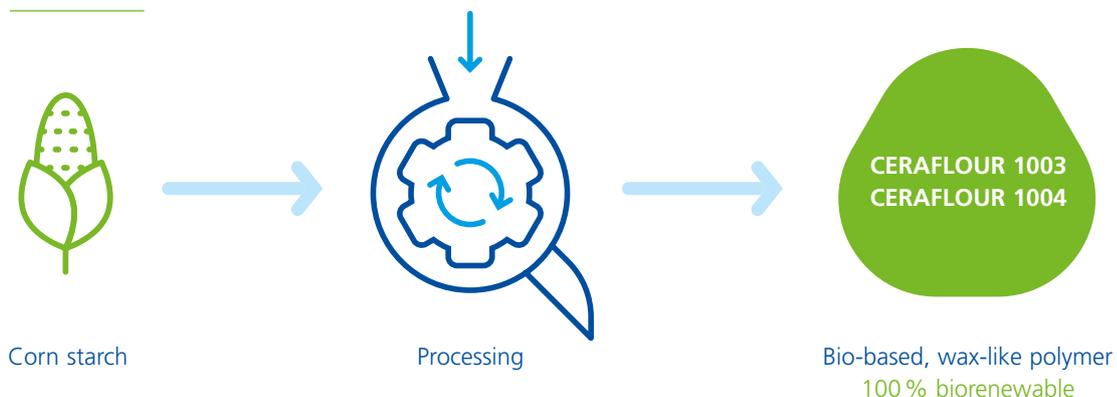
CERAFLOUR 1003 & CERAFLOUR 1004

BYK's new sustainable, biorenewable, starch-based wax-like polymers for matting with optimum transparency

For BYK, sustainability is an important criterion in the development of new additives. In addition to the product's direct properties and effects, questions regarding environmental impact, chemical basis and energy consumption always play a significant role, too.

CERAFLOUR 1003 and CERAFLOUR 1004 are starch-based polymers for providing good matting efficiency while keeping optimum transparency. CERAFLOUR 1003 gives a slight surface structure and provides a similar matting effect at different observation angle. CERAFLOUR 1004 has finer particles for a slight matting effect combined with high transparency and a smooth, soft and silk feel.

The CERAFLOUR 1000 series is based on renewable carbon



Comparison of properties

CERAFLOUR 1003

Corn starch

- Slight surface structure
- Excellent transparency
- Providing a similar matting effect at different observation angles

- **100% renewable resources**

- Particle size distribution
D50: 13 µm, D90: 19 µm
- Decomposes after approx. 10 min at 200 °C

CERAFLOUR 1004

Finer corn starch

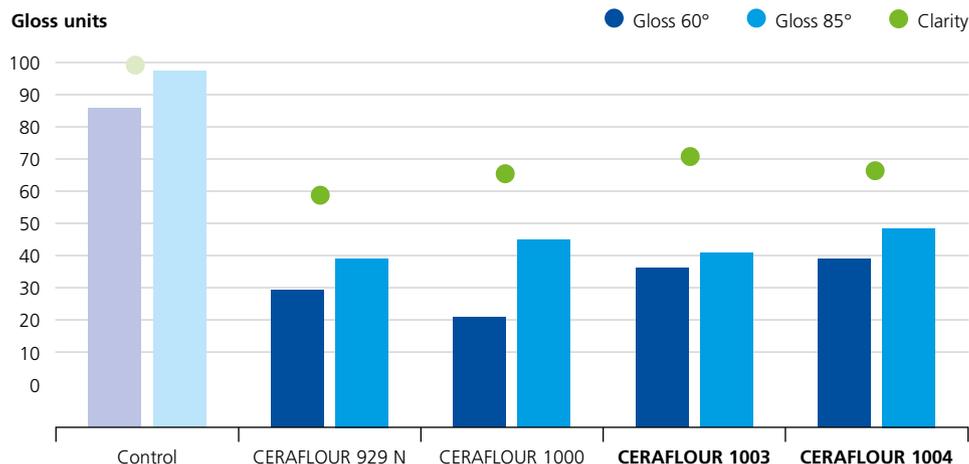
- Moderate matting effect
- High transparency
- Smooth, soft and silky feel surface especially for lower film weight applications

- **100% renewable resources**

- Particle size distribution
D50: 10 µm, D90: 15 µm
- Decomposes after approx. 10 min at 200 °C



High gloss reduction combined with excellent clarity



Test system: Water-based acrylic system based on Alberdingk AC 2714

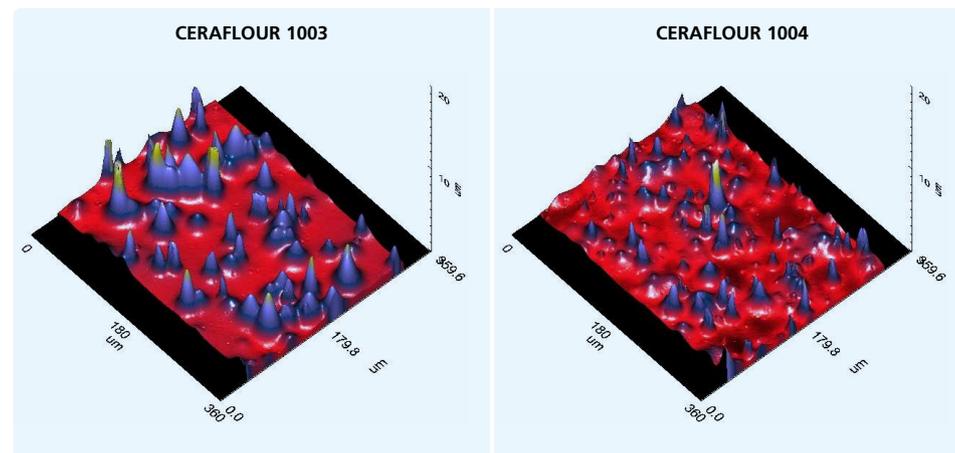
Incorporation: Addition of additive under stirring, 5 min at 4 m/s

Application: 100 µm drawdown on glass panels

Measurement: Gloss with µ-tri gloss, clarity with haze-gard i (both BYK-Gardner)

Clarity: 99.8 Haze: 0.5	Clarity: 34.3 Haze: 52.6	Clarity: 33.2 Haze: 52.8	Clarity: 17.6 Haze: 76.5	Clarity: 25.3 Haze: 68.4	Clarity: 36.2 Haze: 47.2
Control	CERAFLOUR 1003	CERAFLOUR 1004	CERAFLOUR 920	CERAFLOUR 929 N	CERAFLOUR 1000

Matting (CERAFLOUR 1003) and soft feel (CERAFLOUR 1004) due to surface structure



Test system: Based acrylic system on Alberdingk AC 2714

Incorporation: Addition of additive under stirring, 5 min at 4 m/s

Dosage: 2.0 % solid additive

Microscopic image: Confocal microscopy, 35fold magnification

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This issue replaces all previous versions.

