CERAFLOUR 1053

PTFE-free blend of micronized Fischer-Tropsch wax and carnauba wax for reduced COF values and excellent abrasion and scratch resistance in aqueous, solvent-free, solvent-borne and UV coating systems.

Product data

Composition
Blend of micronized Fischer-Tropsch wax and carnauba wax

Typical properties
The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Density (20 °C):	0.95 g/cm³
Melting point:	115 °C
Particle size distribution D50:	6 µm
Particle size distribution D90:	10 µm
Bio-based organic carbon content (ASTM D6866):	49 %
Delivery form:	micropowder

Storage and transportation
Product shelf life in unopened original packaging: 24 months
Temperature sensitive. To be stored and transported at a temperature below 50 °C.

Applications

Coatings industry

Special features and benefits
The mechanical properties of CERAFLOUR 1053 are comparable to those of a typical PE/PTFE wax. The additive improves the scratch and abrasion resistance and decreases the COF values of aqueous, solvent-borne, solvent-free, and UV coating systems. As a result of the extra-fine particle size distribution, the additive can also be used in clearcoats and in coating systems with low film thickness. It has only a very minor effect on gloss and haze. In aqueous systems, the organic co-solvent content should be at least 5–10 % in order to prevent the wax additive from floating. CERAFLOUR 1053 has outstanding abrasion resistance in a broad spectrum of application areas compared to a PE/PTFE wax.

Recommended use

Can coatings	■
Wood and furniture coatings	■
General industrial coatings	□
Architectural coatings	□

■ especially recommended □ recommended

Recommended levels
0.2-5 % additive (as supplied) based on the total formulation.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions
The additive is preferably incorporated into the coating at a medium shear rate at the end of the production process. The temperature should remain below 40 °C to prevent swelling of the wax particles. Alternatively, CERAFLOUR 1053 can be pre-dispersed in these organic solvents or in a mixture of these solvents and binders that are components of the respective coating formulation. This facilitates the incorporation. A typical dosage for pre-dispersion is between 15 % and 25 % CERAFLOUR 1053. Pre-dispersion in water is not possible. The storage stability in the coating system should be tested.

Printing inks

Special features and benefits
The additive increases surface slip and improves abrasion resistance in aqueous and solvent-borne printing inks and overprint varnishes.

Recommended levels
1-3 % additive (as supplied) based on the total formulation.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions
The additive should preferably be incorporated into printing inks at the end of the production process at medium shear rate.

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