CERAFLOUR 1051

PTFE-free micronized modified polyethylene wax additive for particularly increasing the abrasion resistance and improving the scratch resistance and surface slip of aqueous, solvent-borne, solvent-free, and UV coating systems. Function and efficiency comparable to typical PE/PTFE wax additives.

Product Data

Composition
Micronized modified polyethylene wax

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

Density (20 °C):	1.06 g/ml
Melting point:	125 °C
Particle size distribution (laser diffraction, volume distribution):	D50: 6 µm, D90: 10 µm
Supplied as:	Micropowder

Storage and Transportation
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 1051 are comparable to those of a typical PE/PTFE wax. The additive improves the scratch and abrasion resistance of aqueous, solvent-borne, solvent-free, and UV coating systems. The surface slip is slightly increased. 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, CERAFLOUR 1051 has matting properties due to the particularly good orientation toward the surface. In such systems, the organic cosolvent content should be at least 5-10 % in order to avoid creaming of the wax additive. CERAFLOUR 1051 has outstanding abrasion resistance in a broad spectrum of application areas compared to a PE/PTFE wax.

Recommended Use

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

■ especially recommendedn □ recommended

Recommended Levels

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

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

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 1051 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 1051. Pre-dispersion in water is not possible.

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