

## Bermocoll E 451 FQ

Bermocoll® E 451 FQ is a non-ionic, water-soluble cellulose ether. It improves the consistency, the stability, and the water retention of water-based products.

### Specifications

Appearance	Whitish powder
Particle size	98 % ≤ 500 µm
Salt content	≤ 5 %
Water content	≤ 4 %

### Characteristics

pH, 1% solution	5-7
Surface activity	Weak
Viscosity at 20 °C (Brookfield LV), 1% solution	2550-3600 mPa.s

#### Notes:

Bermocoll® E 451 FQ is a high viscosity grade of ethyl hydroxyethyl cellulose.

## Applications

Bermocoll® E 451 FQ is used in latex paints for thickening and stabilizing effects. Normal dosage in paints is 0.2 -0.5 % calculated on total paint weight. Bermocoll® E 451 FQ is used in cement-based tile fix and joint mortars for improvement of workability, consistence, water retention, and adhesion. Normal dosage in mortars is 0.3 - 0.6 % calculated on dry mortar weight. Bermocoll® E 451 FQ is easily dispersed in cold water of pH 7 or less. Bermocoll® E 451 FQ can form lumps when added to alkaline liquid. To avoid this, it should be added as a ready stock solution, as a slurry in slightly acid water or in organic solvent, or as a dry mix with other powder materials. The dissolving time after dispersion is influenced by the water pH. Alkaline additives can be used to speed up the dissolving process.

## Storage

In unopened bags, Bermocoll® E 451 FQ can be stored for several years. In opened bags, the moisture content of Bermocoll® E 451 FQ will be influenced by the air humidity. At the temperatures above 250 C (480 F), charring of Bermocoll® E 451 FQ will occur.

## Packaging and transport

Like many industrial powdery materials, cellulose ether dusts are combustible and can cause dust explosions. Dust formation must be avoided or kept to a minimum. Care should be taken to prevent ignition from heat, spark, open flames or hot surface. Bermocoll® E 451 FQ is packed in a polyethylene bag. Net weight 20 kg. We recommend emptying the bags from the bottom. In unopened bags, Bermocoll® E 451 FQ can be stored for several years. In opened bags, the moisture content of Bermocoll® E 451 FQ will be influenced by the air humidity. At the temperatures above 250 C (480 F), charring of Bermocoll® E 451 FQ will occur. At high temperatures and in contact with an open flame, Bermocoll® E 451 FQ will burn slowly with the characteristics of cellulose.

## Safety and handling

At high temperatures and in contact with an open flame, Bermocoll® E 451 FQ will burn slowly with the characteristics of cellulose.

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