



# **BERMOCOLL E 411 X**

BERMOCOLL E 411 X 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 % ≤ 300 µm
Salt content	≤ 5 %
Water content	≤ 4 %

### Characteristics

pH, 1% solution	7
Surface activity	Weak
Viscosity at 20 °C (Brookfield LV), 1% solution	850-1200 mPa.s

#### Notes:

BERMOCOLL E 411 X is a medium viscosity grade of ethyl hydroxyethyl cellulose.

## **Applications**

BERMOCOLL E 411 X is used in cement-based tile fix and joint mortars for improvement of workability, consistency, water retention and adhesion. Normal dosage in mortars is 0.2 - 0.7 % calculated on the dry mortar weight. BERMOCOLL E 411 X is also used in gypsum-based crack fillers. For this application, a suitable concentration is 0.6 - 0.8 %. BERMOCOLL 411 X is intended for dry mixing with other powder materials and should not be used for direct dissolving in water.

### Storage

In unopened bags, BERMOCOLL E 411 X can be stored for several years. In opened bags, the moisture content of BERMOCOLL E 411 X will be influenced by the air humidity. At the temperatures above 250 °C (480 °F), charring of BERMOCOLL E 411 X will occur.

## Packaging and transport

Like many industrial processed 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 411 X is packed in a polyethylene bag. Net weight 20 kg. We recommend emptying the bags from the bottom. The empty bags can be recycled or burned. In unopened bags, BERMOCOLL E 411 X can be stored for several years. In opened bags, the moisture content of BERMOCOLL E 411 X will be influenced by the air humidity. At the temperatures above 250°C (480°F), charring of BERMOCOLL E 411 X will occur. At high temperatures and in contact with an open flame, BERMOCOLL E 411 X will burn slowly with the characteristics of cellulose.

## Safety and handling

At high temperatures and in contact with an open flame, BERMOCOLL E 411 X will burn slowly with the characteristics of cellulose.

All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Nouryon, however, makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nouryon does not accept any liability whatsoever arising out of the use of or reliance on this information, or out of the use or the performance of the product. Nothing contained herein shall be construed as granting or extending any license under any patent. Customer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes. The information contained herein supersedes all previously issued information on the subject matter covered. The customer may forward, distribute, and/or photocopy this document only if unaltered and complete, including all of its headers and footers, and should refrain from any unauthorized use. Don't copy this document to a website.

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