

## Mineral flame retardant for polymers EcoPiren® 3,5NP\*

\* The median particle size (D<sub>50</sub>) of this product is 3,5 µm measured by laser diffraction. When measured by sedimentation technique the D<sub>50</sub> is 1,5 µm

### Description

A fine white powder of magnesium hydroxide. Produced from selectively mined natural magnesium hydroxide (ground brucite) by milling and classification.

### Application

Used as flame retardant filler for polymeric materials for achieving of high oxygen index (LOI), and for ensuring of the absorption of smoke and toxic gases. Typical application is HFFR and PVC cable jacketing and insulation.

### Properties

| Parameter   | Specification   | Typical   |
|---|-----------------|-----------|
| MgO/Mg(OH) <sub>2</sub> , %                       | 64.0/92.8 min.  | 64.8/94.0 |
| CaO, %  | 2.3 max.        | 2.1       |
| SiO <sub>2</sub> , %                              | 1.3 max.        | 1.2       |
| Fe <sub>2</sub> O <sub>3</sub> , %                | 0.13 max.       | 0.11      |
| Loss on ignition at 950 °C, %                     | 30-32           | 31        |
| Specific gravity**, g/cm <sup>3</sup>             | 2,4             |           |
| Loose Bulk Density, kg/m <sup>3</sup>             | 300 min.        | 350       |
| Humidity, %                                       | 0.5 max.        | 0.3       |
| Particle Size Distribution, µm:                   |                 |           |
| Laser diffraction<br>(Malvern Mastersizer)        | D <sub>10</sub> | 0.8-1.3   |
|   | D <sub>50</sub> | 3.0-4.0   |
|   | D <sub>97</sub> | 14-19     |
| Sieve residue 45µm, %                             | 0.1 max.        |           |
| Specific Surface Area (BET)***, m <sup>2</sup> /g | 9-11            |           |
| Surface treatment by alkyl silane, %              | 0.7-1.5         |           |
| Whiteness, CIE method                             | 86 min.         | 88.5      |
| Tint, CIE method                                  | 0.5 max.        | 0.1       |
| Product appearance                                | White powder    |           |

\*\* reference value for brucite mineral

\*\*\* measured on request

### Storage

The shelf life is 12 months from the time of delivery, when stored in dry place and while maintaining the tightness of packing. Opened bags should be resealed immediately

### Packing

Polypropylene bags with polyethylene liner, big bags

### Safety

Refers to low-hazard substances; fire- and explosion-proof, non-toxic

### Transportation

Transported by all modes of transport in accordance with the rules of transportation of goods that operate in this mode of transport