Mineral flame retardant for polymers Ecopiren® 3,5NP*

*The median particle size (D₅₀) of this product is 3.5 µm measured by laser diffraction. When measured by sedimentation technique the D₅₀ 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.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Specification</th>
<th>Typical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MgO/Mg(OH)₂ %</td>
<td>64.0/92.8 min.</td>
<td>64.8 / 94.0</td>
</tr>
<tr>
<td>CaO, %</td>
<td>2.3 max.</td>
<td>2.1</td>
</tr>
<tr>
<td>SiO₂, %</td>
<td>1.3 max.</td>
<td>1.2</td>
</tr>
<tr>
<td>Fe₂O₃, %</td>
<td>0.13 max.</td>
<td>0.11</td>
</tr>
<tr>
<td>Loss on ignition, %</td>
<td>30-32</td>
<td>31</td>
</tr>
<tr>
<td>Loose Bulk Density, kg/m³</td>
<td>300 min.</td>
<td>350</td>
</tr>
<tr>
<td>Humidity, %</td>
<td>0.5 max.</td>
<td>0.3</td>
</tr>
</tbody>
</table>

**Properties**

- Particle Size Distribution, µm:
  - Laser diffraction (Malvern Mastersizer) D₅₀: 0.8-1.3
  - D₉₀: 3-4
  - D₇₅: <30
- Surface Area Range, m²/g: 9-11
- Whiteness, CIE method: 86 min. 88.5
- Surface treatment by alkyl silane, %: 1
- Product appearance: White powder

**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

**Security**

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 operates in this mode of transport.

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