GC APP II

Ammonium Polyphosphate

Molecular Formula (NH₄PO₃)ₙ
CAS Registry Number 68333-79-9

GC APP II is a halogen-free flame retardant containing ammonium polyphosphate. GC APP II has a high degree of polymerization and as it is in crystalline phase II. GC APP II flame retardant properties are defined by an intumescent mechanism. GC APP II has a high content of phosphorus and nitrogen, high thermal stability, low solubility in water and almost neutral pH.

GC APP II is particularly suitable for application in engineering polymers: polypropylene, polyethylene, EVA, TPE, polyurethane, unsaturated polymers and their derivatives. GC APP II usage can be both in extrusion and in moulding.

PHYSICO-CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White powder</td>
</tr>
<tr>
<td>Phosphorus, %</td>
<td>min 31.0</td>
</tr>
<tr>
<td>Nitrogen, %</td>
<td>min 14.0</td>
</tr>
<tr>
<td>Thermal Decomposition, °C</td>
<td>min 275</td>
</tr>
<tr>
<td>Density at 25°C, g/cm³</td>
<td>ap. 1.9</td>
</tr>
<tr>
<td>Water content, %</td>
<td>max 0.5</td>
</tr>
<tr>
<td>Polymerization grade, n</td>
<td>min 1000</td>
</tr>
<tr>
<td>Medium particle size, µm</td>
<td>15</td>
</tr>
<tr>
<td>Solubility in water, g/cm³</td>
<td>max 0.5</td>
</tr>
</tbody>
</table>

HANDLING AND STORAGE:
The processing and use of GC APP II requires adequate technical and professional knowledge. Please consult safety data sheet for further handling, storage and toxicity information. GC APP II has to be stored in tightly sealed original container in a cool and well-ventilated area, away from direct sunlight.

PACKAGING:
Standard packaging size of GC APP II is 25 Kg bag.

Important note
Some plastic additives, fillers or pigments can significantly influence the flame retardant properties of the end product. Before using this product, please be informed. Machine stop at high temperature could create degradation of polymers. Please clean with neutral polymers.

DISCLAIMER:
Information contained in this document is provided to the best of our knowledge and is considered true as per revision date. We do not accept any liability for loss and damage that may occur from the improper use of this information and for the use against the safety legal requirements and patent rights. This specification does not release the customer from the obligation to check the product as to its suitability for intended area of usage.