Vulkanol® P

Function

Vulkanol® P is a dry liquid formulation of triacetine (50 %) on silica (50 %) and used in rubber applications as polar synthetic plasticizer to improve processing and dispersion of fillers. Vulkanol® P is mainly used in polar polymers as also in compounds with polar fillers like silica. In silica filled tread compounds for passenger car tires the wet traction can be improved.

Product description

Composition: preparation of additive on silica
Appearance: white powder

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal value</th>
<th>Unit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content of carbon</td>
<td>25 ± 2</td>
<td>%</td>
<td>Elementary analysis</td>
</tr>
<tr>
<td>Ash content</td>
<td>46 ± 3</td>
<td>%</td>
<td>ASTM D 4574</td>
</tr>
</tbody>
</table>

Use

Mode of action: As polar substance Vulkanol® P has a strong tendency to polar fillers or polymers. In compounds with polar fillers like silica the processing is therefore improved. Increasing the hardness of the silica filled vulcanizate Vulkanol® P has no influence on the Payne Effect.

Processing: Vulkanol® P is readily mixed into the rubber compounds. In silica tread compounds the compound viscosity is significantly reduced, the Scorch safety is prolonged in combination with shorter vulcanization time using Vulkanol® P as replacement for mineral oils.

Vulcanizate Properties: By replacing mineral oils in silica tread formulations Vulkanol® P increased the hardness of the vulcanizate, other mechanical or dynamic properties like modulus, tensile strength, elongation at break or loss factor are not influenced.

Dosage: Typical levels of Vulkanol® P addition based on 100 parts by weight of elastomer are:

- NBR (e.g. Perbunan®, Krynac®) 30 phr
- CR (e.g. Baypren®) 30 phr
- NR 20 phr
- SBR (e.g. Buna® SE, Buna® VSL) 20 phr
- IIR 20 phr
Packaging
20 kg package on skid.

Storage stability
In original closed containers under cool (approximately 25 °C) and dry conditions 365 days from date of production.

Handling
For additional handling information on Vulkanol® P please consult current safety data sheet.

These raw material properties are typical and, unless specifically indicated otherwise, are not to be considered as delivery specification.

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