Chemical nature

Lupranol 4003/1 is a polyether polyol which has been grafted with styrene-acrylonitrile (SAN) and contains mainly primary hydroxyl end groups. This polyol contains about 45 % solids. It forms a stable dispersion which does not separate under normal storage conditions. This product contains a small amount of a low-emission and low-discolouring antioxidant combination (without BHT and amine) ensuring preservation of the product properties during supply, storage and processing.

Applications

Lupranol 4003/1 is used for the production of highly elastic PU foams according to the cold-cure or slabstock foaming process as well as for the manufacture of semi-rigid molded parts.

This polymer polyol is used in mixtures for HR-slabstock foams containing 30 % to 90 % of a highly reactive polyether polyol such as Lupranol 2090, Lupranol 2095 and is processed together with Lupranat® T 80 A.

Lupranol 4003/1 is processed in PU cold-cure foam systems together with reactive polyether polyols, blowing agents, catalysts, stabilizers and other additives if required, with MDI/TDI containing B-components (prepolymers) to high-quality and low-emission molded parts which are optimally suitable for the automotive industry.

Foams made from Lupranol 4003/1 have higher comfort, improved elasticity and better load bearing properties than conventional foams.

Typical properties

Appearance: opaque viscous liquid

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH Number</td>
<td>20.0</td>
<td>mg KOH/g</td>
<td>DIN 53 240 *</td>
</tr>
<tr>
<td>Viscosity at 25 °C</td>
<td>7 300</td>
<td>mPa·s</td>
<td>DIN EN 12092</td>
</tr>
<tr>
<td>Water Content</td>
<td>≤ 0.05</td>
<td>%</td>
<td>DIN 51 777</td>
</tr>
<tr>
<td>Density at 25 °C</td>
<td>1.046</td>
<td>g/cm³</td>
<td>DIN 51 757</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 160</td>
<td>°C</td>
<td>DIN EN 22 719</td>
</tr>
</tbody>
</table>

* Determination of OH Number by phthalic anhydride

Safety advice

If it is intended to use BASF Polyurethanes GmbH materials for the manufacture of consumer goods (e. g. products which will come into contact with foodstuffs or drinking water or products which are in contact with the skin, toys) or medical devices, national and international regulations have to be observed.
Where no regulations exist, consumer goods with intended food contact or medical devices must at least comply with European legislation. We recommend contacting our sales department and/or product-safety-polyurethanes@basf.com.

Especially, in the case that migration tests or tests of trace monomers are recommended in the special legislations by the manufacturer of consumer goods or medical devices, the obligation to fulfill these requirements and to conduct tests on the supplied products is still in the hand of the customer/manufacturer of the final product. BASF Polyurethanes GmbH cannot take over this responsibility for the use of its products from our customers.

The compliance with legal requirements and generally accepted standards for consumer protection has to be proven for the specific application using the final product.

On processing these products, take note of the necessary precautionary measures described in the Material Safety Data Sheets (MSDSs). For further information on safety measures at the processing of polyurethane products consult our Technical Information ‘Safety and Precautionary Measures for the Processing of Polyurethane Systems’.

Supply and storage

Lupranol 4003/1 is supplied in road tankers and non-returnable drums. After supply the product may be stored under appropriate conditions for at least six months. The storage temperature should be maintained between 20 °C and 30 °C. The storage temperature should be as close as possible to the temperature at which the material will be processed. Moist and wet conditions are to be avoided.

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Viscosity Curve

Density Curve