TIXOGEL VP

Gellant

Product Data

Recommended Use
TIXOGEL VP is a thixotropic and anti-settling agent for the following fields of application:

- Non-polar to low polar systems
- Alkyd resin varnishes
- Anti-fouling coatings
- Oil varnishes
- Polyacrylate paints
- Epoxy varnishes
- Bitumen paints
- Standard boat paints
- Chloride and cyclo rubber paints
- Special Systems
- Road traffic paints
- Printing Inks (mineral oil base)
- Dip-coating varnishes
- Cosmetics
- Surfacers
- Putty
- Pickling agents
- Lubricants

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Suitable solvents
Aromatic hydrocarbons such as toluene, xylene, solvent naphtha, styrene, aliphatic hydrocarbons such as white spirit, turpentine oil. To improve gelation of TIXOGEL VP, aliphatic benzenes should contain approx. 5% aromatic compounds.
Typical Properties
The values indicated in this data sheet describe typical properties and do not constitute specification limits.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>cream</td>
</tr>
<tr>
<td>Specific weight</td>
<td>1.8 g/cm³</td>
</tr>
<tr>
<td>Bulk weight</td>
<td>400-600 g/l</td>
</tr>
<tr>
<td>Residue on 90 µm screen</td>
<td>max 15 %</td>
</tr>
<tr>
<td>Primary particle size</td>
<td>1-5 µm</td>
</tr>
<tr>
<td>Water content</td>
<td>max. 3 %</td>
</tr>
<tr>
<td>Temperature resistance</td>
<td>200-250 °C</td>
</tr>
</tbody>
</table>

Incorporation and Processing Instructions
For optimum gelation, TIXOGEL VP must be dispersed in the solvents using high shearing forces. An agitator operating at 1.000 to 3.000 rpm will generally be sufficient. First, an 8-10 % parent batch is prepared, e.g. in solvent naphtha. After dispersion in this solvent (approx. 5-10 min. at 1.800 rpm), polar solvents are added for optimum gelation, e.g.:

- Methanol / H₂O 95/5 30 % relative to dry TIXOGEL VP
- Ethanol / H₂O 9/5 30 % relative to dry TIXOGEL VP
- Acetone 60 % relative to dry TIXOGEL VP
- Glycol ether 60 % relative to dry TIXOGEL VP

Depending on the consistency required, 2-8 % of the parent batch (equivalent TIXOGEL VP content 0.2-0.8 %) are worked into the paint system. These preparations are then processed by cylinder mills, ball mills or agitators.

If TIXOGEL VP is to be worked directly into a paint system then the product is first moistened with the above mentioned quantity of a polar solvent and then homogenized. The moistened TIXOGEL VP is then stirred into the organic system by means of an agitator and subsequently is processed in a cylinder mill, ball mill or bead mill, or directly dispersed by an agitator producing high shear. Various surface-active agents such as lecithin, Antiterra U, Texaphor can assist the working-in of TIXOGEL VP. It must be ensured, however, that the surface-active agent used is compatible with the paint system and does not cause any perturbation. TIXOGEL VP is resistant to dilute acids and alkalines.

Storage and Transportation
Two years if stored dry in unopened, original packing at temperatures between 0 °C and 30 °C.