Adwel® 1639

Aqueous Polyurethane Dispersion

Technical Data Sheet

Name: Adwel® 1639
Revision Date: 2019-7-9

Product Description

Adwel® 1639 is an aqueous anionic aliphatic polyurethane dispersion. It is a raw material for the formulation of heat activated adhesives. Adwel® 1639 has excellent bonding properties on a variety of materials. Its bonding strength, heat and water resistance can be enhanced by adding an appropriate amount of water dispersible polyisocyanate hardener named Aquolin® 161 from Wanhua Chemical. Solvent: <0.5% acetone. It’s APEO, organotin and organic amine neutralizing agent free. Biocide: CMIT/MIT 3:1 49ppm and MBIT 200ppm.

Properties

1. Low heat activated temperature
2. Good comprehensive performance
3. High cost-effective

Characteristic data*

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Milky white liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight Solids</td>
<td>50±2</td>
<td>%</td>
<td>WHPU/T011-571-2017 (5cm,150°C,20min)</td>
</tr>
<tr>
<td>pH</td>
<td>6.0-9.0</td>
<td></td>
<td>GB/T 14518-1993</td>
</tr>
<tr>
<td>Viscosity</td>
<td>50-2000</td>
<td>mPa·s</td>
<td>GB/T 2794-2013 (Brookfield,LV,63#/12rpm,25°C)</td>
</tr>
<tr>
<td>Density</td>
<td>1.02-1.09</td>
<td>g/cm³</td>
<td>GB/T 4472-2011</td>
</tr>
<tr>
<td>Activated temperature</td>
<td>50-65</td>
<td>°C</td>
<td>SP-WHSM-07-1017</td>
</tr>
<tr>
<td>MFFT</td>
<td>5-15</td>
<td>°C</td>
<td>SP-WHSM-07-1030</td>
</tr>
</tbody>
</table>

*These properties are typical but do not constitute specifications.
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Handling and Precautions

1. If the product needs to be diluted, we recommend deionized water must be used; Tap water may cause flocculation or demulsification.

2. If the product needs to be mixed with other products, compatibility and storage stability must be tested.

3. After mixed with isocyanate curing agent, it should be used up in 4 hours, and the residues should not be poured back to the primary product.

Storage

The validity of this product is 6 months and performance must be assessed if the product exceeds the shelf life. The product should be stored above 5°C and below 35°C. Temperature below 5°C will cause viscosity increase or irreversibly damage. Prolonged storage at high temperature will have negative impacts on products and may cause sedimentation or coagulation. The product should be protected from direct sunlight with the integrity of the packaging to avoid skinning. It is strongly suggested to filter before further application as skinning or gel may form inevitably during storage and transport.

Disclaimer: Wanhua Chemical Group Co., LTD. recommends that customers should check with Materials Safety Data Sheet (MSDS) for details about safety instructions. We also suggest that you contact the suppliers of other materials used in our recommended formulations and consult appropriate health and safety regulations prior to use. The information contained herein is believed to be reliable. However, nothing in this technical sheet should be considered as a representation of warranty, express or implicit, regarding the product characteristics, application, quality, safety, merchantability or fitness for a particular purpose. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.

This is a trial product. Further information may be compiled in the future. Commercialization and continued supply of this material are not assured.