BECKOSOL AQ®
Alkyd performance. Water cleanup.
Beckosol AQ® is a new platform of low VOC alkyd latex resins made from renewable resources. We take conventional alkyd chemistry and emulsify it in water to deliver a unique combination of alkyd performance and regulatory compliance, without the use of solvents. From stains to metal primers, look to Reichhold for premium performing alkyd latex resins mixed with environmental responsibility.

**COMPLIANCE**
- Made from renewable resources – vegetable oils
- Soap & water cleanup
- Alkyl Phenol Ethoxylate (APEO) free
- Non-flammable
- TSCA & DSL listed
- VOC < 50 g/L
- Require no coalescing solvent for film formation

**PERFORMANCE**
- Flow & appearance of a solventborne alkyd
- Multiple gloss levels with one vehicle
- High gloss capability
- Exceptional durability
- Incredible adhesion
- Long-term stability
- No cost or performance tradeoffs

**GO ABOVE AND BEYOND LOW VOC**

In today’s changing market, our Beckosol AQ® family of products is really Reichhold’s answer to the growing need to meet more stringent regulations and performance requirements. The Beckosol AQ® product line is both low VOC and made from renewable resources.

**FORMULATED VOC CONTENT**

- **Beckosol AQ® 50 g/L**
- **Acrylic Latex 150 g/L**
- **Solventborne Alkyd 380 g/L**
## CHEMISTRY & APPEARANCE

The innovative alkyd latex chemistry behind Beckosol AQ® brings all the features you expect from an alkyd: ease of application, high gloss and excellent flow and leveling all without the use of solvents. Alkyd latex chemistry also provides the foundation for a stable resin and formulated coating system. These low molecular weight (MW) and low glass transition temperature (Tg) resins eliminate the need for coalescing solvents and exhibit both a visual and performance advantage compared to acrylic latex alternatives.

### BECKOSOL AQ® CHEMISTRY

- **Very low H₂O concentration in core**
- **Surfactant shell**

### BECKOSOL AQ® APPEARANCE

- Low MW & flexible polymer chain
- Excellent wetting due to low MW & Low T<sub>g</sub>
- Air-crosslinking builds MW & coating performance

### ACRYLIC LATEX APPEARANCE

- High MW & Spherical
- Poor substrate wetting
The Beckosol AQ® series of resins is capable of achieving high gloss values rivaling a solventborne alkyd and far exceeding an acrylic latex. They are also easily flattened for a variety of sheens.

BECKOSOL AQ® 101

Beckosol AQ® 101 offers outstanding durability in a multitude of applications. After three years of exterior horizontal exposure on Copper Azole treated decking, Beckosol AQ® 101 retains the natural warm color of the wood and surpasses a best-selling commercially available waterborne semi-transparent stain. Exterior exposures on wood or cementitious substrates show eventual film failure by means of erosion, not flaking, peeling or loss of adhesion.
Beckosol AQ® 205 has been specially designed to protect topcoats from a variety of everyday stains. Primers formulated with Beckosol AQ® 205 outperform a best-selling commercial waterborne stain-blocking primer.

When properly formulated, Beckosol AQ® 205 offers excellent cure and tannin bleed resistance.
Beckosol AQ® 206 is the high gloss, color stable resin you need for exceptional trim finishes. Weatherometer accelerated weathering results are displayed below, where exposure testing consists of alternating cycles of light and condensing humidity per SAE-J1960 test parameters and ASTM standard test method G153.

Beckosol AQ® 206 maintains good color stability in a variety of test conditions and outperforms the leading commercial high VOC solventborne alkyd for yellowing resistance.

<table>
<thead>
<tr>
<th>DELTA YI</th>
<th>BECKOSOL AQ® 206</th>
<th>COMPETITIVE ALKYD LATEX</th>
<th>380 G/L SOLVENTBORNE ALKYD w/ ZINC OXIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DARK STORAGE 5 WEEKS</td>
<td>1.11</td>
<td>1.57</td>
<td>1.10</td>
</tr>
<tr>
<td>AMMONIA VAPOR EXPOSURE</td>
<td>1.41</td>
<td>2.06</td>
<td>2.71</td>
</tr>
<tr>
<td>HEAT-AGED 7 DAYS @ 120°F</td>
<td>4.07</td>
<td>4.58</td>
<td>3.71</td>
</tr>
</tbody>
</table>
Beckosol AQ® 210 has excellent adhesion and corrosion resistance over a variety of metal substrates including aluminum, steel and galvanized steel. Furthermore, these systems can be recoated at four hours and exhibit good non-lift properties.

Beckosol AQ® 210 alkyl latex resins deliver regulatory compliance without sacrificing performance. They have the robust characteristics of a solventborne alkyl yet clean up with soap and water. For more information please visit www.beckosolaq.com.

Beckosol AQ® 210 is stable with reactive pigments and demonstrates outstanding stability, both as a neat resin and formulated paint. The chart below shows stability data for Beckosol AQ® 210 red iron oxide primer after storage at 122°F / 50°C for four weeks.

<table>
<thead>
<tr>
<th>PRIMER STABILITY</th>
<th>INITIAL</th>
<th>4 WEEKS AT 120°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, Stormer, KU</td>
<td>95</td>
<td>100</td>
</tr>
<tr>
<td>Viscosity, ICI, Poise</td>
<td>0.75</td>
<td>0.65</td>
</tr>
<tr>
<td>pH</td>
<td>7.9</td>
<td>7.3</td>
</tr>
</tbody>
</table>

**ALKYD PERFORMANCE. WATER CLEANUP.**

Beckosol AQ® alkyl latex resins deliver regulatory compliance without sacrificing performance. They have the robust characteristics of a solventborne alkyl yet clean up with soap and water.

For more information please visit www.beckosolaq.com.
The information herein is to help customers determine whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before using them to satisfy themselves as to contents and suitability. We warrant that our products will meet our written specifications. Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose, nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials, and in no event shall we be liable for special, incidental, or consequential damages. Reproduction of all or any part is prohibited except by permission of authorized Reichhold personnel.

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