Celvaset™ PL 1000

A low VOC coalescent for architectural paints and coatings

The right coalescent for low VOC architectural paints and coatings

Celvaset PL 1000 is a low VOC coalescent designed to replace the solvent in paint formulations based on conventional vinyl acrylic and acrylic emulsion systems. Celvaset PL 1000 can be used to achieve formulations with <50 g/L VOC, while maintaining the required film durability and low temperature film formation.

Regulatory concerns

The environmental impact of paints has been one of the most important trends affecting formulations in the coatings industry for over 15 years. In response to increasingly stringent VOC regulations, coatings manufacturers have reformulated their latex paints to remove the solvents. Unfortunately, the removal of coalescing solvents often had a negative impact on the performance and quality of the paints including slower dry times, blocking and reduced hardness. Low VOC paints formulated with Celvaset PL 1000 still achieve the high performance that consumers and professionals expect.

Key features:

- Meets VOC legislation
- Low odor
- Efficient at lowering MFFT
- Versatile – use with common latex formulas
- Easy to formulate
- Low risk of shocking paint in manufacturing
- Minimal EHS concerns

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>0.967</td>
</tr>
<tr>
<td>Boiling point</td>
<td>408° C</td>
</tr>
<tr>
<td>Acid value</td>
<td>max. 0.10 mg/KOH/g</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Very slight</td>
</tr>
<tr>
<td>Water</td>
<td>max. 0.10% (w/w)</td>
</tr>
<tr>
<td>Water solubility</td>
<td>&lt;0.002 g/l</td>
</tr>
<tr>
<td>VOC</td>
<td>~0.2%*</td>
</tr>
</tbody>
</table>

* Celvaset PL 1000 was tested alone at an independent lab. Method 24 testing resulted in <2 g/L VOC.
Celvaset PL 1000 was tested at an independent lab via Method 24 showing results of less than 2 g/L (<0.2%) VOC. This same low VOC effect has been documented in paint formulas as well. Creating low to no VOC paints has never been easier than with this low VOC coalescent.

**Environmental trends**

Besides local, state and federal mandates, there is also growing public sentiment against those products and activities which harm the environment. Consumers care about everything from recycling to global warming. The green movement, once a small fraction of our population, is now a growing part of the mainstream public. Though the concept of volatile organic compounds is still foreign to most consumers, paint manufacturers can build a marketing campaign around lower emissions and low odor. The latter is a key attribute for the paint consumer.

**Easy to use**

Celvaset PL 1000 makes low VOC paint formulation easy. It is extremely compatible with a wide range of latexes including vinyl acrylic, styrene acrylic, pure acrylic and VAE. It is also non-yellowing in the formula to ensure better whites and true colors.

Tested in a wide variety of paint formulations, Celvaset PL 1000 has a neutral effect on thickener response. Unlike many coalescents which have a negative impact on the thickener, this product does not. Celvaset PL 1000 also has shown improved scrub and stain resistance in some formulations vs. other coalescents on the market. During manufacturing, there is very little chance of shocking the paint and causing gel formation, thus ruining the batch. No special mixing is required to add Celvaset PL 1000 into the mixing tank.

Celvaset PL 1000 is also easy to store in the lab and on the manufacturing floor. It has both an NFPA and an HMIS rating of 1-0-0, so there are no issues with combustibility, etc. Refer to the MSDS for complete information on environmental, health and safety issues.

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