ROVACE™ 9100  Vinyl/Acrylic Copolymer Emulsion

Description

ROVACE 9100 emulsion copolymer is a 55% solids vinyl/acrylic binder for interior flat and semigloss paints. This new generation of binder provides superior scrub resistance and stain removal; its consistent particle size minimizes variability in paint production. ROVACE 9100 emulsion copolymer is compatible with today's prevalent use of rheology modifiers which give very good application properties and flow and leveling characteristics.

Benefits

- Excellent scrub resistance
- Superior stain removal
- Very good application and touch-up
- Very good compatibility with rheology modifiers
- Economical formulating
- Consistent paint manufacturing

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brookfield Viscosity, 25°C</td>
<td>400 cP</td>
</tr>
<tr>
<td>Solids content</td>
<td>55%</td>
</tr>
<tr>
<td>Specific Gravity of Latex @ 25°C</td>
<td>1.1</td>
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<tr>
<td>Density, lbs./U.S. gal., 25°C</td>
<td>9.06</td>
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<tr>
<td>Dry bulking Value, U.S. gal./lb.</td>
<td>0.1027</td>
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<tr>
<td>pH</td>
<td>5.0</td>
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<tr>
<td>Average particle size</td>
<td>0.3 microns</td>
</tr>
<tr>
<td>MFT</td>
<td>10°C</td>
</tr>
</tbody>
</table>

Performance

The high molecular weight and narrow particle size control of ROVACE 9100 emulsion copolymer make it an ideal choice for formulating with rheology modifiers, achieving good brush application, excellent touch-up, and superior flow and leveling characteristics. ROVACE 9100 emulsion copolymer also offers excellent stain removal capabilities as well as superior scrub resistance. The consistent narrow particle size distribution minimizes variability in plant production.

In addition, ROVACE 9100 emulsion copolymer is supplied at a lower viscosity than typical vinyl/acrylic copolymers, allowing easier transfer from tanktrucks to bulk storage equipment. This results in less foam generation, less polymer drying in transfer lines, and less time required for transfer. The lower viscosity also enables more accurate delivery through flow meters.

ROVACE 9100 emulsion copolymer is one of the highest quality, most economical new generation binders for interior flat and semigloss paints. However, Rohm and Haas does not consider vinyl/acrylic copolymer based systems suitable for quality exterior paints, although we do recognize that such systems are used in certain exterior applications. Based on our exposure data, we expect ROVACE 9100 emulsion copolymer to have performance properties similar to other commercially available vinyl/acrylic copolymers. We encourage our customers to review our exposure panels when they visit our Spring House Exposure Station.
**Formulating**

ROVACE 9100 emulsion copolymer is designed to perform in paint formulations which are optimized for vinyl/acrylic emulsions. When substituting for an existing binder, the formulator should make a solid-on-solid replacement of ROVACE 9100 emulsion copolymer for the current binder and evaluate performance.

Slight modifications may be required to achieve a commercially acceptable paint formulation. Rohm and Haas technical service chemists will assist you in fine tuning paints if this is required. Several starting point formulations based on ROVACE 9100 emulsion copolymer have been developed and are available from your local Rohm and Haas technical representative.

**Coalescent Choices**

ROVACE 9100 emulsion copolymer requires coalescing agent to achieve optimal film properties. The concentrations vary with formulation variables such as PVC and Volume Solids.

Texanol\(^1\) is the recommended coalescent. Levels of 6% to 9% based on polymer solids are recommended for most applications. We have seen that Texanol levels as high as 12% may improve scrub-resistance even further.

An alternative coalescent is Dowanol DPnB\(^2\) (Di-propylene glycol-n-butyl-ether) which has also been found to give good film formation. It also improves freeze-thaw stability in marginal paint formulations.

\(^1\)Eastman Chemical Company  
\(^2\)Dow Chemical Company

**Material Safety Data Sheets**

Rohm and Haas Material Safety Data Sheets (MSDS) contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products.

Under the OSHA Hazard Communication Standard, workers must have access to and understand MSDS on all hazardous substances to which they are exposed. Thus, it is important that you provide appropriate training and information to your employees and make sure they have available to them MSDS on any hazardous products in their workplace.

Rohm and Haas Company sends MSDS for all its products, whether or not they are considered OSHA-hazardous, to both the "bill to" and/or "ship to" locations of all its customers upon initial shipment, including samples. If you do not have access to one of these MSDS, please contact your local Rohm and Haas representative for an additional copy.

Updated MSDS are sent upon revision to all customers of record. In addition, MSDS are sent annually to all customers receiving products deemed hazardous under the Superfund Amendments and Reauthorization Act.

MSDS should be obtained from your suppliers of other materials recommended in this bulletin.

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