ROVACE™ 9100AF Vinyl/Acrylic Copolymer Emulsion
For Interior Flat and Semigloss Paints

Regional Product Availability
North America

Description
ROVACE™ 9100AF Copolymer Emulsion is a new emulsion that offers the same performance as ROVACE 9100 Copolymer Emulsion, but is manufactured without the use of APEO surfactants. ROVACE 9100AF Copolymer Emulsion is a 55% solids vinyl/acrylic binder for interior flat and semigloss paints. This new generation of binder offers exceptional scrub resistance and stain removal and its consistent particle size minimizes variability in paint production. ROVACE 9100AF Copolymer Emulsion is compatible with today's prevalent use of rheology modifiers that show very good application properties, flow and leveling characteristics. In our lab testing and evaluations we have not seen any differences in formulation parameters, application properties or dry film property differences between ROVACE 9100 and ROVACE 9100AF Copolymer Emulsion.

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

Typical Physical Properties
(These properties are typical but do not constitute specifications.)

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Values</th>
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</thead>
<tbody>
<tr>
<td>Brookfield Viscosity, 25°C</td>
<td>400 cP</td>
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<tr>
<td>Solids content</td>
<td>55%</td>
</tr>
<tr>
<td>Specific Gravity of Latex @ 25°C</td>
<td></td>
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<tr>
<td>Density, lbs./U.S. gal., 25°C</td>
<td>1.1</td>
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<tr>
<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>10°C</td>
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<tr>
<td>Average particle size</td>
<td>0.3 microns</td>
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Performance
The high molecular weight and narrow particle size control of ROVACE™ 9100AF Copolymer Emulsion make it an ideal choice for formulating with rheology modifiers, achieving good brush application, excellent touch-up, and exceptional flow and leveling characteristics. ROVACE 9100AF Copolymer Emulsion also offers excellent stain removal capabilities as well as exceptional scrub resistance. The consistent narrow particle size distribution minimizes variability in plant production.
In addition, ROVACE™ 9100AF Copolymer Emulsion is supplied at a lower viscosity than typical vinyl/acrylic copolymers, allowing easier transfer from tank trucks 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 9100AF Copolymer Emulsion is one of the highest quality, most economical new generation binders for interior flat and semigloss paints. However, Dow 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 9100AF Copolymer Emulsion 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 Guidelines**

ROVACE™ 9100AF Copolymer Emulsion 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 9100AF Copolymer Emulsion for the current binder and evaluate performance.

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

**Coalescent Choices**

ROVACE™ 9100AF Copolymer Emulsion requires coalescing agent to achieve optimal film properties. The concentrations vary with formulation variables such as PVC and Volume Solids.

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

An alternative coalescent is DOWANOL™ DPnB (Di-propyleneglycol-n-butyl-ether) which has also been found to give good film formation. It also improves freeze-thaw stability in marginal paint formulations.
Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner. It is the user’s responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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