ROPAQUE™ DUAL Opaque Polymer
For solvent-borne Alkyd Paints and Conventional Water-borne Paints

Regional Product Availability
EMEA

Product Description
ROPAQUE™ DUAL Opaque Polymer is a distinct new generation opaque polymer for use in both architectural solvent-borne alkyd and traditional water borne paints. One value of this technology is the reduction of TiO2 in solvent-borne alkyd paints and the subsequent reduction in raw material cost, as does ROPAQUE™ Ultra E Opaque Polymer today in water based paints. Other benefits, like reduction in Volatile Organic Compounds content, may be possible through further optimization of the formulation. The physical properties of ROPAQUE™ DUAL Opaque Polymer are given in the table below.

Features and Benefits
- Suitable for solvent-borne and water borne architectural paint formulations
- APEO-free*, ammonia free* and low VOC
- Inherent light scattering contributing to opacity
- Allows TiO2 reduction and lowers formulation cost
- Allows formulate at equal or higher performance
- Wide formulation latitude from low to high PVC’s
- Helps to reduce the overall VOC of solvent-borne

* APEO and ammonia are not intentionally added and are not knowingly introduced from another raw material.

Typical Properties
These are typical properties, not to be construed as specifications

<table>
<thead>
<tr>
<th>Typical physical properties</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Solids (%)</td>
<td>30 – 31</td>
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<tr>
<td>Volume Solids (%)</td>
<td>50</td>
</tr>
<tr>
<td>Wet density</td>
<td>1.03</td>
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<tr>
<td>Dry density</td>
<td>0.63</td>
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<tr>
<td>Void fraction (%)</td>
<td>44</td>
</tr>
<tr>
<td>pH</td>
<td>8.5 – 9.5</td>
</tr>
<tr>
<td>Particle size, μm</td>
<td>0.4</td>
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<tr>
<td>Viscosity, mPa.s</td>
<td>&lt; 500</td>
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</tbody>
</table>
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 or national 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 or national regulations. Contact your Dow Coating Materials Technical Representative for more information.

Chemical Registration

Many countries within EMEA require the registration of chemicals, either imported or produced locally, prior to their commercial use. Violation of these regulations may lead to substantial penalties imposed upon the user, the importer or manufacturer, and/or cessation of supply. It is in your interests to ensure that all chemicals used by you are registered. Dow does not supply unregistered products unless permitted under limited sampling procedures as a precursor to registration.

Note on EMEAI Product Line

Product availability and grades vary throughout the countries in the EMEAI area. Please contact your local Dow Coating Materials representative for further information and samples.

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.

For more information visit us on www.dow.com

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