



## RHOPLEX™ MULTILOBE™ 400 Emulsion Polymer

For Architectural Coating Applications, (APEO-Free, Low-VOC, Exterior Flat & Satin Paints)

### Regional Product Availability

North America

### Description

RHOPLEX MULTILOBE 400 Emulsion Polymer represents The Dow Chemical Company's progress in design of an APEO (alkyl phenol ethoxylate) surfactant free binder for low-VOC exterior flat and satin paints, providing excellent durability, color retention, and dirt pick-up resistance.

RHOPLEX MULTILOBE 400 Emulsion Polymer is the latest addition to the MULTILOBE product family which utilizes a combination of technologies from Dow. First and foremost, MULTILOBE technology enhances film-build performance and reduces thickener demand. Also, polymer composition has been modified to a slightly lower Tg relative to MULTILOBE™ 200 in order to optimize the balance of properties with lower co-solvent levels.

### Typical Physical Properties

(The following properties are typical but should not be regarded as specifications)

Property	Typical Values
Solids content, %	53.0–54.0
pH	8.5–9.2
Viscosity (cP)	300–1,500
Gel Content, g/qt	
100 Mesh	0.05 max
325 Mesh	0.10 max
Polymer Dry Density, lb/gal	9.4
Tg, DSC, onset, °C	8

### Summary of Features and Benefits

Features	Manufacturer Benefit <sup>†</sup>	User Benefit
Increased film build	Minimized level and cost of thickener.	Best applied hiding, uniformity of appearance, and durability.
Chalk-adhesion	No alkyd modification required.	Resistance to blistering and related ultimate flaking.  Elimination of alkyd modification means better mildew resistance, tint retention and color compatibility, and easier brush clean-up.
Wet adhesion	Tolerates rheology modifiers; suitability for variety of substrates.	Resistance to cracking, flaking, and peeling over wood and repaint surfaces.
All-acrylic binder	Proven performance over a broad formulating range.	Confidence in quality of paint.
Chalk resistance / dirt resistance	Formulating latitude: Flat and satin paints; use of different extender types.	Long-term tint retention and appearance.
Minimized level of surfactant for color acceptance	Ease of color acceptance; reduced foaming, surfactant leaching, and water sensitivity; reduced raw material costs.	Good appearance; minimized foaming.

<sup>†</sup> Manufacturer benefits are those in addition to minimized failures and maximized customer satisfaction.

## 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.

**CAUTION!** Keep combustible and/or flammable products and their vapors away from heat, sparks, flames and other sources of ignition including static discharge. Processing or operating at temperatures near or above product flashpoint may pose a fire hazard. Use appropriate grounding and bonding techniques to manage static discharge hazards.

**CAUTION!** Failure to maintain proper volume level when using immersion heaters can expose tank and solution to excessive heat resulting in a possible combustion hazard, particularly when plastic tanks are used.

## Storage

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

## Disposal

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 Coating Materials Technical Representative for more information.

## Chemical Registration

Many countries within the Asia-Pacific 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. The Dow Chemical Company does not supply unregistered products unless permitted under limited sampling procedures as a precursor to registration.

## 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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