



Technical Data Sheet

DOWSIL™ IE-2404 Emulsion

Silicone resin emulsion for coating applications

Features & Benefits

- Good film-forming properties upon drying
- Excellent water repellency of the films
- Enhanced beading and hydrophobing effect achievable with addition of DOWSIL™ Z70 Emulsion
- Good binding properties for filler and pigments
- Alkoxy silyl groups react chemically upon drying
- Can be diluted or used as supplied to provide binding properties and water repellency to renders and coatings
- Addition levels of silicone resin emulsions in architectural coating or render range between 3 and 10%
- Enables formulation of silicone resin paints and renders with:
 - High water-vapor permeability
 - Increased resistance to UV degradation
 - High pigment volume concentration
 - Low VOC (waterborne)
 - Increased resistance to blistering, cracking, and peeling

Composition

- Oil-in-water silicone resin emulsion
- 50% active ingredients

Applications

- For formulation of silicone-resin-based renders and coatings that have low water absorption and high gas- and moisture-vapor permeability

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Color		Milky white
Active content	%	50
pH		6–9
Density	g/cm ³	1.02
Solvent (thinner)		Water
Viscosity	mPa•s	1500

Description

DOWSIL™ IE-2404 Emulsion is a 50% active non-ionic silicone resin emulsion. It is used as a binder in silicone-resin-based render and coating formulations to provide high moisture-vapor permeability, good liquid water repellency, and high UV resistance when formulated properly. Typically, DOWSIL™ IE-2404 Emulsion is used in conjunction with additional acrylic-based binders.

As a reactive silicone resin, active ingredients from DOWSIL™ IE-2404 Emulsion can chemically react with fillers and pigments.

Silicone resins are well known for their ability to reinforce and bind inorganic materials. This leads to protection of the hydrophilic pigments or fillers from water intrusion in the film.

How to Use

DOWSIL™ IE-2404 Emulsion can be diluted in water before use or can be used as supplied. The water should be added to the emulsion. Deionized water is recommended for dilution. To prevent mold growth within the package, additional preservatives may be required.

For best performance, use levels of DOWSIL™ IE-2404 Emulsion contents are recommended at 3–8% for render applications and 6–10% for coating applications.

Beading and water repellency for liquid water can be further improved by the addition of a small amount of DOWSIL™ Z70 Emulsion.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

DOWSIL™ IE-2404 Emulsion should be stored under dry conditions. Avoid freezing.

When stored at or below 40°C (104°F) in the original unopened containers, this product has a useable life of 12 months from the date of manufacture.

Packaging Information

DOWSIL™ IE-2404 Emulsion is supplied in 500 mL bottles, 20 kg pails, 200 kg drums and 1,000 kg IBC quantities.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health And Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, consumer.dow.com or consult your local Dow representative.

consumer.dow.com

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