



Technical Data Sheet

DOWSIL™ 905H Additive

Emulsion of functional silicon polymer for improved hydrophobing of masonry water-born silicone resin based paints

Features & Benefits

- Can be diluted in water or used as supplied to provide hydrophobic properties in masonry silicone resin based paints
- DOWSIL™ 905H Additive will specifically reduce the water absorption and improve the surface beading when used in conjunction with DOWSIL™ 902H Resin in the formulation of masonry water based silicon resin based paints
- Recommended use level ranges between 0.5 and 2%
- Low VOC (0 g/l US include; 0 g/l US exclude; DIRECTIVE 2004/42/CE: 10 g/l)
- The use of a functional silicon polymer emulsion, in conjunction with a silicone resin emulsion such as DOWSIL™ 902H Resin and additional (styrene-) acrylic based binder, enables the formulation of masonry water based silicone resin based paints with
 - High water repellency and beading
 - High water vapor permeability
 - Increased resistance to UV degradation

Composition

- Functional silicone polymer emulsion
- 60% active ingredients

Applications

- For improving water resistance of water-born silicone resin based paints

Typical Properties

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

Test ¹	Property	Unit	Result
CTM0176	Color		Milky white
CTM0862	Active Content	%	60
CTM0007	pH		6–9
CTM0001	Density	g/cm ³	1.0
	Solvent (Thinner)		Water
	Viscosity (Brookfield Viscosity)	mPas	900

1. CTM: Corporate Test Method, copies of CTM's are available on request.

Description

DOWSIL™ 905H Additive is a 60% active nonionic silicone polymer emulsion. It is used as a hydrophobic additive in water-born silicone resin based paints and coating formulations known to have high moisture vapor permeability and good liquid water repellency. Typically, DOWSIL™ 905H Additive will be used in conjunction with additional silicone resin emulsion and (styrene-) acrylic based binder.

How to Use

DOWSIL™ 905H Additive 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 preservative may be required.

For masonry silicone resin based paint or render applications, 0.5 to 2% content is recommended for best performance.

DOWSIL™ 905H Additive releases no volatiles during reaction.

Mix Before Use

During storage, some product stratification may be observed; therefore, it is recommended that DOWSIL™ 905H Additive be mixed prior to use or down-packaging to ensure homogeneity. Small bottles can be hand mixed or mixed on a mixing wheel. Larger packaging, such as pails or drums, can be rolled. Tote packages can be mixed with the use of a tote mixer. To reduce the risk of microbial and physical contamination, minimize the duration that containers are open, and use only clean and sanitized equipment and tools. Further, to avoid the risk of over-shearing during tote mixing, pitched blades are recommended rather than cowles-style or other higher shear blades. Variable speed mixers are recommended, as speed may need to be adjusted to ensure mixing efficiency depending on product viscosity. Finally, a multiple blade assembly be necessary to avoid stagnant zones and ensure appropriate mixing occurs throughout the tote.

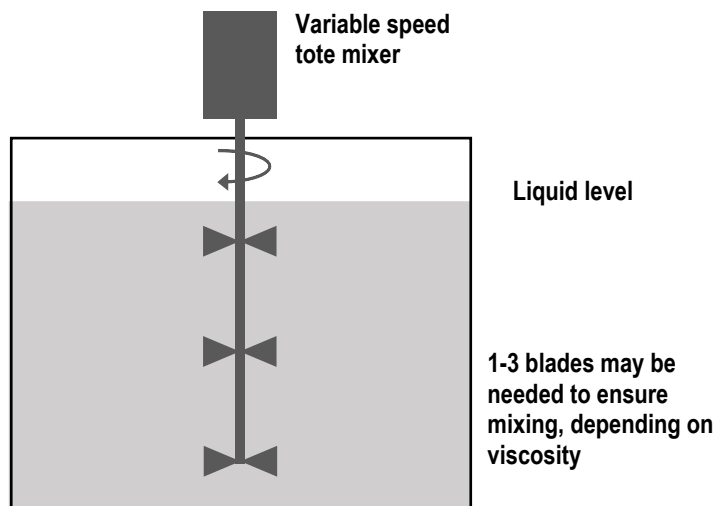


Figure 1. Example tote mixing configuration

**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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

**Usable Life and
Storage**

DOWSIL™ 905H Additive should be stored under dry conditions out of direct sunlight. When stored at or below 40°C (104°F) in the original unopened containers, this product has a usable life of 12 months from the date of production.

**Packaging
Information**

This product is available in 500 ml bottles, 200 kg drums and 1,000 kg containers.

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, dow.com or consult your local Dow representative.

**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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