



Technical Data Sheet

DOWSIL™ IE-6682 Emulsion

Impregnation sealer for masonry and cementitious surfaces

Features & Benefits

- DOWSIL™ IE-6682 Emulsion is a water based silane emulsion which can be used as supplied or diluted in water to formulate water repellent products.
- Small molecular structure of the active material allows product to deeply penetrate the substrate.
- Silanes react chemically and bond with the substrate which makes cement-based surfaces hydrophobic.
- Produces a hydrophobic treatment that reduces liquid water absorption but which is water vapor permeable.
- Provides hydrophobic treatment when post-applied at low active solids levels, ranging from 5 to 10 percent.
- DOWSIL™ IE-6682 Emulsion can be used as a sealer, to prime surfaces before post coating.

Composition

- Oil in water silane emulsion.
- 52.5 weight % of active ingredients.
- Active ingredients include alkoxysilane.

Applications

- DOWSIL™ IE-6682 Emulsion is suitable for imparting water repellency to porous construction materials such as fiber reinforced cement boards, bricks, concrete blocks, mortar and grout substrates which can be subsequently painted or rendered.

Typical Properties

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

CTM ¹	Property	Unit	Result
0176	Color		Milky white
0862	Active Content	%	52.5
0007	pH		5–9
0001	Density	g/ml	0.95
	Solvent (Thinner)		Water

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

Description

DOWSIL™ IE-6682 Emulsion is a 52.5% active non ionic silane-based emulsion. Silanes are well known for their ability to provide hydrophobicity and reduce the water ingress in treated materials. Active ingredients from DOWSIL™ IE-6682 Emulsion are reactive materials which can chemically react with masonry or cement-based surfaces. Low molecular weight silanes insure impregnation of the treated surface.

How to Use

It is advised to stir DOWSIL™ IE-6682 Emulsion prior to its application.

DOWSIL™ IE-6682 Emulsion can be diluted in water before use or can be used as supplied. The water should be added to the emulsion with low shear mixing. Deionized water is recommended for dilution. To prevent mold growth within the package, additional preservative may be required. After dilution, it is advised to make sure the pH is maintained in the 5–9 range.

For post-treatment applications, dilutions leading to 3 to 10% actives content in a ready-to-use emulsions are typical, depending on the porosity of the substrate and your performance requirement. An actives level of 5% (1 part DOWSIL™ IE-6682 Emulsion to 9 parts water) is usually adequate for general purpose formulations.

DOWSIL™ IE-6682 Emulsion releases ethanol during curing.

Mix Before Use

During storage, some product stratification may be observed; therefore, it is recommended that DOWSIL™ IE-6682 Emulsion 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.

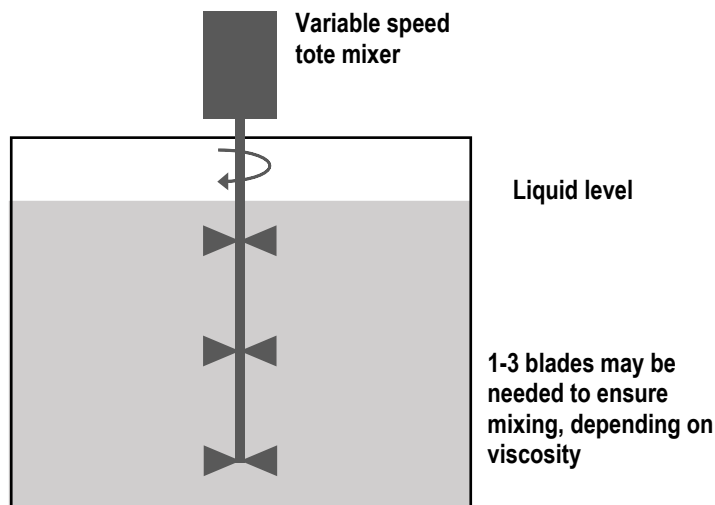


Figure 1. Example tote mixing configuration

**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**

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.

Protect from freezing.

**Packaging
Information**

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

Limitations

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

Water uptake of cement-based material under constant hydrostatic pressure cannot be reduced by use of DOWSIL™ IE-6682 Emulsion.

**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.

dow.com

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