



Technical Data Sheet

DOWSIL™ Z-6289 Resin

Integral Water Repellent for Cement-Based Construction Materials

Features & Benefits

- Clear, low viscosity fluid which can be used as an admixture in cementitious materials.
- Reacts chemically within the cementitious matrix and provides integral water repellent treatment.
- Treated cement-based materials are resistant against water absorption throughout the material.
- Easy to mix and can be used as supplied in cement-based slurry.
- When used as an additive to cementitious matrix, this silicone-based resin can impart the following benefit to the final material:
 - Reduction in capillary absorption of water.
 - Reduction of ingress and transfer of water-soluble salts through the matrix and related aesthetic problems such as efflorescence.
 - Releases little Volatile Organic Content (VOC) upon reaction. When VOC is calculated in accordance with the California Air Resource Board regulations, the DOWSIL™ Z-6289 Resin contains 10 g/L VOC.

Composition

- Silicon-based resin.
- Active ingredients contain alkoxyethyl group.

Applications

- Admixture for cement-based construction materials with improved water resistance (Fiber reinforced cement boards or prefabricated building components such as autoclaved lightweight cement).

Typical Properties

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

Property	Unit	Result
Color		Clear liquid (transparent to light yellow)
Active Content	%	> 96
Viscosity	cSt	100–300
Density	g/ml	0.99

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DOWSIL™ Z-6289 Resin

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Description	<p>DOWSIL™ Z-6289 Resin admixture is an alkyl-functionalized, low viscosity silicone resin.</p> <p>Upon proper mixing of the product into cement-based formulation, it will disperse into the water-based slurry.</p> <p>Addition of DOWSIL™ Z-6289 Resin provides hydrophobicity and decreases dramatically the water ingress of cementitious materials in which it is included. Alkoxysilyl chemical group in the resin can chemically react with cement hydrate during cement cure. Alcohol is released upon reaction of the resin.</p> <p>This product can be used in many application areas where the protection of the substrate from liquid water ingress is required.</p>
How To Use	<p>DOWSIL™ Z-6289 Resin should be used as supplied. Do not dilute in solvents prior to use. Depending on final requirements, DOWSIL™ Z-6289 Resin can be used at levels ranging from 0.1 to 0.5%. Prior testing and evaluation are required to ensure optimum addition level for maximum water repellency and a minimum potential impact on the other board properties. Determination of optimum addition levels should be evaluated in the laboratory before any production scale evaluation.</p>
Handling Precautions	<p>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.</p>
Usable Life and Storage	<p>DOWSIL™ Z-6289 Resin should be stored under dry conditions out of direct sunlight below 90°F (32°C) in the original unopened containers. When stored in the original unopened container this product has a usable life of 18 months from the date of production.</p>
Packaging Information	<p>This product is available in 175 kg drums, 18 kg pail and 950 kg containers.</p>
Limitations	<p>This product is neither tested nor represented as suitable for medical or pharmaceutical uses.</p> <p>Water uptake of cement-based material under constant hydrostatic pressure cannot be reduced by use of DOWSIL™ Z-6289 Resin.</p>

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.

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