

## DOWSIL™ GP SHP 50 Silicone Hydrophobic Powder

### FEATURES & BENEFITS

- Free-flowing white powder
- Makes cement-based materials more hydrophobic
- Provides resistance to water absorption throughout the material
- Easy to mix in powdered composition
- Easy to disperse in water
- Reduces aesthetic problems such as efflorescence
- Minimizes liquid water transport through cured cementitious material through surface or capillary action
- Can substantially decrease water absorption by cementitious material when in direct contact for up to 24 hours
- Can be added at levels ranging from 0.2 to 1.0 weight % with limited impact on compression strength

### COMPOSITION

- Silane-based

Free-flowing powder designed for cementitious dry-mix powder applications

### APPLICATIONS

- Added to dry ingredients of cement-based compositions to improve hydrophobic performance
- As a barrier to the capillary movement of liquid water in grouts, joint fillers, mortar, EIFS, stucco, and façade-rendering applications

### TYPICAL PROPERTIES

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

Test <sup>1</sup>	Property	Unit	Result
CTM 0176B	Appearance		White, free-flowing granules
	Composition		Silane based
	Particulate size distribution <50 Silicone Hydrophobic Powder 0 micron	%	> 80
	Mean particle size	µm	200–300
	Bulk density	g/L	650

1. CTMs (Corporate Test Methods) correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

### DESCRIPTION

DOWSIL™ GP SHP 50 Silicone Hydrophobic Powder was developed to offer the performance of a liquid silicon-based hydrophobic material in dry delivery systems.

DOWSIL GP SHP 50 Silicone Hydrophobic Powder is a three-component granule, consisting of a powder carrier, an encapsulant, and a finely dispersed silicone active. The encapsulant provides storage stability in the powdered composition and the release of the active ingredient upon addition of water.

This product can find uses in many application areas where the protection of the substrate from liquid water ingress is a critical issue.

DOWSIL GP SHP 50 Silicone Hydrophobic Powder provides excellent dispersibility into water.

As with other siloxane-based products, surface hydrophobic property of mortar modified with DOWSIL GP SHP 50 Silicone Hydrophobic Powder is resistant to UV irradiation.

DOWSIL GP SHP 50 Silicone Hydrophobic Powder will provide instant hydrophobicity upon cure.

## HOW TO USE

DOWSIL GP SHP 50 Silicone Hydrophobic Powder is a dry powder. This product is intended to be added to the dry ingredients of the mixture.

Determination of optimum addition levels should be evaluated in the laboratory.

Addition levels of up to 1.0 weight % of the dry mix ingredients are possible, but most applications would typically require between 0.2 and 0.75 weight % DOWSIL GP SHP 50 Silicone Hydrophobic Powder in the dry mix.

The water level of the final formulation should be optimized to the desired consistency.

Cement-based mixtures formulated using DOWSIL GP SHP 50 Silicone Hydrophobic Powder can be mixed and applied using standard industry equipment.

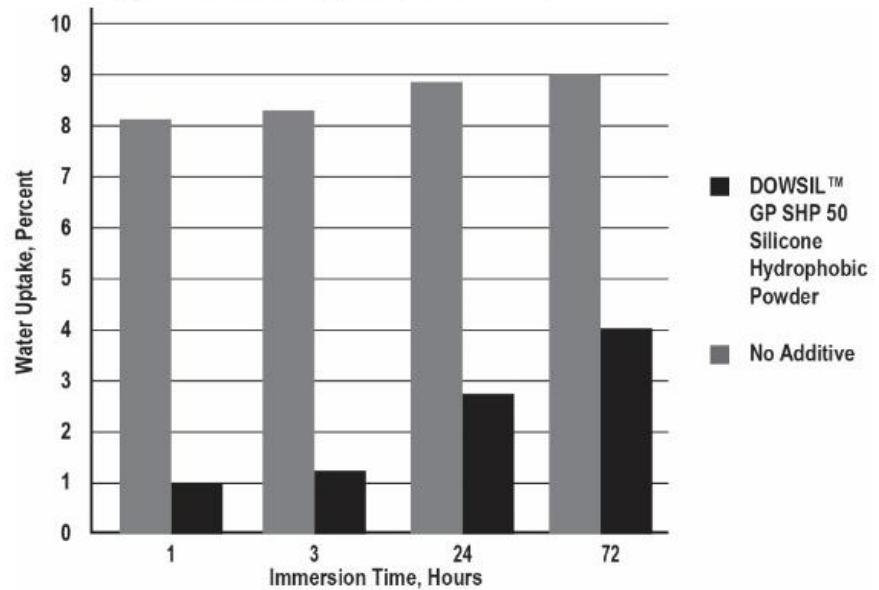
## HANDLING

### 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 [WWW.CONSUMER.DOW.COM](http://WWW.CONSUMER.DOW.COM), OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.**

**Figure 1: Water Uptake Over Time<sup>1</sup>**



<sup>1</sup>Formulation containing 2.21% of DOWSIL™ GP SHP 50 Silicone Hydrophobic Powder added to 73.34% sand and 24.45% cement versus a control mixture without the additive.

## USABLE LIFE AND STORAGE

DOWSIL GP SHP 50 Silicone Hydrophobic Powder should be stored under dry conditions out of direct sunlight.

When stored at or below 40°C (104°F) in the original unopened containers, DOWSIL GP SHP 50

Silicone Hydrophobic Powder has a usable life of 21 months from the date of manufacture.

## PACKAGING INFORMATION

DOWSIL GP SHP 50 Silicone Hydrophobic Powder is supplied in 10 kg (22.1 lbs.) bags and 1000 kg (2204.6 lbs.) big bags.

## 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, [www.consumer.dow.com](http://www.consumer.dow.com) or consult your local Dow representative.