# Product Information Hydrophobic Powder

#### **FEATURES & BENEFITS**

- Free-flowing white powder
- Easy to disperse in water
- Easy to mix in powered composition
- Can be added at levels ranging from 0.1 to 0.5 weight %
- Prevents 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
- Prevents efflorescence aesthetical problems by reducing the transport of water-soluble salts
- Makes cement-based materials more hydrophobic
- Limited impact on mechanical properties of set mortars
- Limited impact on dry mix ease of use

# COMPOSITION

• Silane/Resin-based

# *Dow Corning*<sup>®</sup> GP SHP 60+ Silicone Hydrophobic Powder

Free-flowing powder designed as a hydrophobic additive for demanding cementitious dry-mix formulations

#### APPLICATIONS

- Added as ingredients of cement-based compositions to improve hydrophobic performance of final set mortar.
- Used to reduce the capillary movement of liquid water in grouts, joint fillers, mortar, EIFS, stucco, and facade-render.

## **TYPICAL PROPERTIES**

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test <sup>1</sup>	Property	Unit	Result
0176B	Appearance		White, free-flowing powder
	Composition		Silane/Resin based
0957	Particle size distribution <500 micron	%	min 90%
0957	Mean particle size	μm	300
0565B	Bulk density	g/L	600

<sup>1</sup>CTMs (Corporate Test Methods) correspond to standard ASTM (American Society for Testing and Materials) tests in most instances. Copies of CTMs are available upon request.

# DESCRIPTION

*Dow Corning*<sup>®</sup> GP SHP 60+ Silicone Hydrophobic Powder was developed to offer the performance of a liquid silicon-based hydrophobic material in a dry delivery systems. *Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder is a formulation containing a finely dispersed silicon-based active. The powdered composition provides good storage stability and 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.

*Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder provides excellent dispersibility into water. As with other silane-based products, bulk hydrophobic property of mortar modified with *Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder is expected to be resistant to UV radiation.

#### HOW TO USE

*Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder is a dry powder. This product is intended to be added to the dry ingredients of the cement based composition.

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

Most applications will typically require between 0.1 and 0.5 weight % *Dow Corning* GP SHP 60+ 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 *Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder can be mixed and applied using standard industry equipment. Heating should be avoided during or after mixing *Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder in dry mix formulations.

# HANDLING PRECAUTIONS

*Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder is a free-flowing powder, and as such can create dust. Please consult the material safety data sheet for specific handling information as well as recommendations for personal protective equipment.

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

#### USABLE LIFE AND STORAGE

*Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder should be stored under dry conditions out of direct sunlight.

When stored at or below  $40^{\circ}$ C ( $104^{\circ}$ F) in the original unopened containers, *Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder has a usable life of at least 18 months from the date of manufacture. <u>Figure 1</u>: Capillary absorption measured according to EN ISO 15148 of mortars prepared according to EN 196-1 (mortar formulation = 66.45% sand + 33.30% cement) and modified with 0.25% and 0.5% of *Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder



# PACKAGING INFORMATION

*Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder is supplied in 10 kg (22.1 lb) bags, 1000 kg (2204.6 lb) big bags and sample bottles.

#### LIMITATIONS

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

#### DISPOSAL

*Dow Corning* GP SHP 60+ Silicone Hydrophobic Powder can be disposed in accordance with local regulations.

# HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

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

# LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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