



Dow Performance Silicones

DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder



For demanding cementitious dry-mix formulations

DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder is a fine, free flowing powder, specifically designed as a hydrophobic additive for demanding cementitious dry-mix formulations.

- Achieve significantly reduced water absorption and increased water repellency of dry-mix formulations.
- Quick and easy to mix into dry-mix compositions
- Very low dosage, hence more economic
- No or minimal impact on other desired properties of the final formulation
- Reduces the processes of efflorescence

Effective and Economical Formulation of Cement-Based Materials and Admixtures

Low dosage rates, typically ranging from 0.1 to 0.5% by weight of the drymix formulation are recommended for the attainment of optimum properties. Dow recommend testing of hydrophobic characteristics and water levels for application consistency.

Cement-based mixtures formulated using DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder can be mixed and applied using standard industry equipment.

A next generation hydrophobic powder for dry-mix mortars, which delivers increased protection and durability against the damaging effects of water ingress on high performance mortars, for example, in building facades or tiling systems. Offering improved performance when compared to many existing conventional silane-based powders, the innovative formulation of DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder contains a strengthened blend of active silicone ingredients which are encapsulated.

Typical Applications

- To be used as an ingredient in cement-based formulations to improve the hydrophobic performance of final-set mortar
- Reduce the capillary movement of liquid water in high performance mortars, for example, in grouts, EIFS top-coat, stucco and façade render
- Avoids or limits the impact on desired mortar properties such as mechanical performance or setting time
- Suitable as an admixture in cement-based formulations used for interior and exterior applications

Typical Properties

Test ¹	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

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

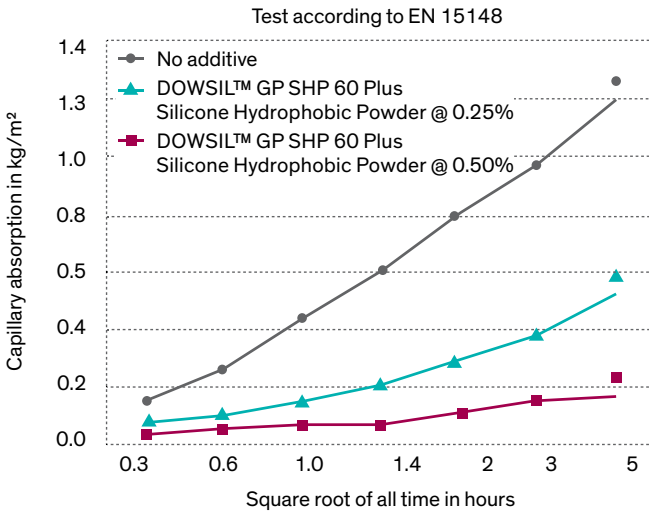
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Achieve High Efficiency and Better Performance

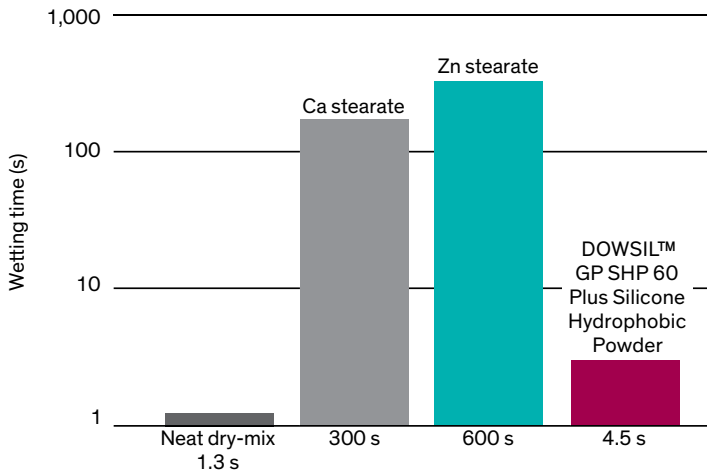
DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder offers the performance of a liquid silicon-based hydrophobic material in a dry delivery system, for fast and convenient easy mixing that has excellent dispersion and workability. The finely dispersed silicon-based active contained within the Dow product formulation provides good storage stability and release of the active ingredient upon the addition of water.

Building materials treated with dry-mix formulations containing DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder display reduced water absorption as well as increased beading. Mechanical and aesthetical deterioration of buildings caused by efflorescence, spalling and cracking can be reduced, thanks to a significant reduction in the absorption of water and therefore, in the transportation of water-soluble salts, acids and stains as well as reduced freeze-thaw damage.

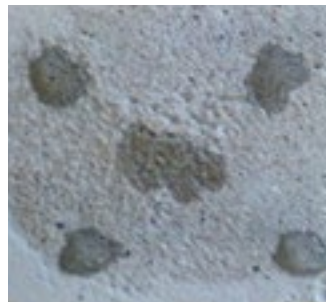
Capillary Water Absorption



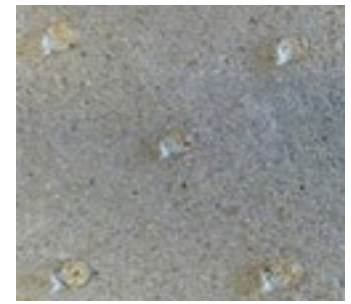
Wetting Time of Dry-mix with 0.25% Hydrophobic Powder



Beading of Water on Modified Mortar Blocks



No additive



With 0.5% of DOWSIL™ GP SHP 60 Plus

Efflorescence Control



Reference mortar sample on the left shows high level of efflorescence. Mortar sample on the right, modified with 0.25% DOWSIL™ GP SHP 60 Plus Silicone Hydrophobic Powder, shows significantly reduced efflorescence.

Contact Us

Dow is collaborating with industry professionals around the world to develop solutions to improve the energy efficiency of buildings for a more comfortable environment. Learn more about Dow's full range of High Performance Building solutions by visiting us online at consumer.dow.com/construction.

Dow has sales offices, manufacturing sites and science and technology laboratories around the globe. Find local contact information at consumer.dow.com/ContactUs.

Images: dow_43184135799, dow_43184139341, dow_43184136439

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Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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