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 dry mix 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**

<table>
<thead>
<tr>
<th>Test</th>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>0176B</td>
<td>Appearance</td>
<td>White</td>
<td>free-flowing powder</td>
</tr>
<tr>
<td></td>
<td>Composition</td>
<td>Silane/Resin based</td>
<td></td>
</tr>
<tr>
<td>0957</td>
<td>Particle size distribution &lt;500 micron</td>
<td>%</td>
<td>min 90</td>
</tr>
<tr>
<td>0957</td>
<td>Mean particle size</td>
<td>µm</td>
<td>300</td>
</tr>
<tr>
<td>0565B</td>
<td>Bulk density</td>
<td>g/L</td>
<td>600</td>
</tr>
</tbody>
</table>

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.

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

**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**

![Graph showing capillary water absorption](image)

**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.