

Product Information

Water Repellent

DOW CORNING

Dow Corning® 772 Water Repellent

FEATURES

- Imparts water repellency to a wide variety of substrates

BENEFITS

- Reduces water absorption into substrates, thus reducing spalling due to freeze-thaw and efflorescence
- Colorless and non-yellowing protection preserves the natural appearance of substrate
- Penetrating and breathable
- Low VOC
- Nonflammable

COMPOSITION

- Water-dilutable sodium methyl silicate solution
- Clear to slightly yellow

Water repellent for masonry surfaces

APPLICATIONS

- Bricks; to increase water repellency and reduce water absorption
- Manufactured and natural stones, such as limestone, sandstone and ceramics; to reduce efflorescence and improve resistance to effects of weathering
- Roofing granules and other products used in contact with asphalt; to provide stain resistance and to improve adhesion of granules to asphalt
- High absorptive mineral aggregates such as *Perlite*^{TM1}; to reduce water absorption
- Decorative tile; to seal against moisture

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test	Unit	Result
Solids Content, after 90 min at 150°C (302°F)	percent	30
Silicone Solids Content	percent	19
Specific Gravity at 25°C (77°F)		1.25
Flash Point, open cup	°C (°F)	>100 (212)
pH		13
Density	lb/gal (g/L)	10.4 (1250)
Solvent (thinner)		Water
Volatile Organic Compound Content	lb/gal (g/L)	0.668 (80)

DESCRIPTION

Dow Corning® 772 Water Repellent is a nonflammable, water soluble sodium methyl silicate solution designed to impart water repellency to a wide variety of surfaces. Supplied at a concentration of 30 percent solids in water, *Dow Corning* 772 Water Repellent is usually diluted to a concentration of 3 percent before being applied. The final concentration depends on the application. The silicate reacts with moisture and carbon dioxide in the air to form an insoluble water-resistant resin within 24 hours.

HOW TO USE

Dow Corning 772 Water Repellent is primarily used as a material additive or surface treatment in applications

that utilize its ability to impart a water repellent surface and reduce water absorption.

As a Surface Treatment

Dow Corning 772 Water Repellent is diluted to a concentration of 3 percent solids or less just prior to application. To prepare a 3 percent solution, mix one gallon (3.78 liters) of *Dow Corning* 772 Water Repellent as supplied with 11 gallons (41.6 liters) of water.

Do not use concentrations higher than 3 percent solids unless prior testing indicates a necessity. The use of higher concentrations than required may result in the formation of a white residue on the surface. Users should test any concentration on the substrate prior to use.

¹Perlite is a trademark of Filter Media, Inc.

Table 1: Performance of Dow Corning 772 Water Repellent on Various Substrates¹

Substrate	% Active Total Solids	Coverage Rate, ft ² /gal (m ² /l)	% Water Exclusion vs. Control after 72 hours ²	% Water Absorption after 72 hours ³
Limestone	3 control	50 (1.2)	62.1	2.3 6.0
Glen Gary Salem Brick	3 control	200 (4.9)	75.4	1.1 4.6
Belden Alamo Jumbo Brick	3 control	130 (3.2)	74.4	1.2 4.70
Belcrest 350 Brick	3 control	110 (2.7)	65.2	1.50 4.50

¹Modified Federal Specification SS-W-110C testing or Modified ASTM D 6532 – brick or stone sample supported in 1/4 inch (6 mm) of water for 72 hours.

²Calculation is based on weight gain of control.

³Calculation is based on weight of block before soaking.

After application of the silicone solution, the treated surface should be allowed to dry at least 24 hours to develop maximum water repellency.

This interval may be shortened somewhat by force-drying at temperatures up to 149°C (300°F). While this removes the water quickly, time must be allowed for the curing reaction between *Dow Corning 772* Water Repellent and the surface being treated. CO₂ streams do not appear to reduce the cure time appreciably.

Application Methods

Dilute solutions of *Dow Corning 772* Water Repellent can be applied by dipping, spraying or brushing.

Surfaces to receive water soluble silicone should be lightly dampened immediately prior to application.

Water soluble silicone does not wet a surface that has been previously treated with a water repellent.

When spraying *Dow Corning 772* Water Repellent, great care should be taken to protect nearby vegetation or articles from overspray. The material is very caustic. It will damage or kill vegetation and will stain or etch glass, plastic, aluminum and most metals. If contamination does occur, wash immediately with water. Due to the high solvent resistance of the cured material, water repellent that has dried on glass must be scraped, and other surfaces may require sandblasting.

If a white precipitate of Na₂CO₃ should form due to the use of too concentrated a solution of water repellent, rundown, overlapping, or second coating, sand blasting or wire

brushing may be necessary to remove it if water does not.

HANDLING PRECAUTIONS

Dow Corning 772 Water Repellent is an alkaline material and should be handled with the same care as solutions of caustic soda. If misting should occur while spraying in an open area, avoid inhalation. Local exhaust is recommended if spray or mist is created in enclosed areas. Swallowing large amounts may injure seriously. Do not get into the eyes, on skin or on clothing. If it falls on the skin, wash immediately. If it gets into the eyes, flush immediately with water for at least 15 minutes and obtain prompt medical attention.

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 FROM YOUR DOW CORNING REPRESENTATIVE, OR DISTRIBUTOR, OR BY CALLING YOUR GLOBAL DOW CORNING CONNECTION.

USABLE LIFE AND STORAGE

When stored in airtight, sealed containers at or below 25°C (77°F), *Dow Corning 772* Water Repellent has a shelf life of 12 months from date of manufacture. If the temperature is allowed to drop below freezing, a crystalline structure may develop. This does not permanently impair the effectiveness of the material. When

heated to room temperature, the solution will again become clear and ready for use.

PACKAGING

Dow Corning 772 Water Repellent is supplied in 550-lb (249.5-kg) containers, net weight.

LIMITATIONS

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

Shipping Limitations

DOT Classification: Corrosive Material

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, www.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 Dow Corning's 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.

Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment.

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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