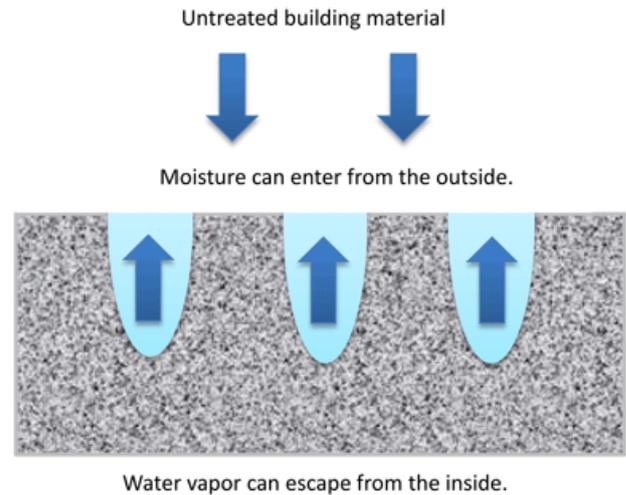


SiSiB SILICONES

Water Repellent Selection Guide

Moisture is the root cause of almost all mechanisms that damage mineral building materials. Their porous nature allows water and dissolved contaminants to penetrate via capillary action from the surface into the interior.

Most siloxanes, especially silanes, are smaller than the pores of substrate, and when applied to the surface of a suitable substrate, penetrate deeply. They react with themselves and any hydroxy (OH) groups within the substrate when moisture is present, forming a silicone resin network. This formation of strong chemical bonds provides the durability characteristic of silicone treatments.



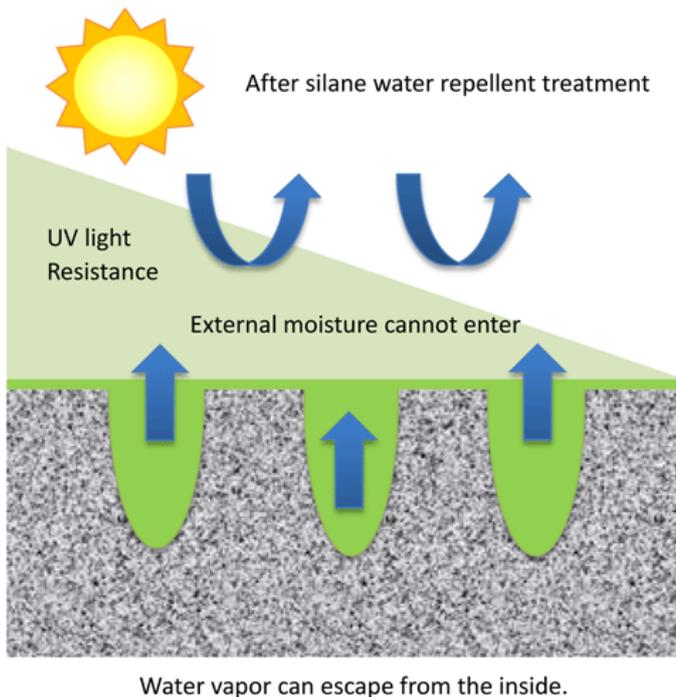
When cured, external liquid water is kept from entering the pores, while water vapor generated from within the structure can still escape. The structure remains breathable. Because they are inside the pores, water repellent treatments are not affected by UV radiation.

Silanes are the smallest silicone molecules, which ensures deep penetration into substrates.

SiSiB SILICONES provide different based waterproofing agents:

- **Crema Based:**

It reduce water uptake extremely effectively. It also ensures very good penetration depth and easy application.



- **Water Based:**

They are free of solvents and a perfect choice for absorbent substrates. They are odor-free and require no special ventilation or personal protective equipment beyond eye protection and gloves. They are not flammable. They can be easily diluted on-site, and cleanup of tools and equipment is very easy.

- **Solvent Based:**

Water-based treatments do not penetrate as deeply as solvent based treatments on less porous substrates, like dense concrete or stone. This can in some cases make water-based treatments less durable over time, but since durability depends so much on the substrate being treated, environmental conditions and other factors

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such as the concentration of the treatment, the durability is not completely dependent on the penetration level.

Water-based treatments tend to dry more slowly than solvent based treatments, but unless the temperature is quite low, this is usually not a concern or problem. If possible, a 24 hour dry time is recommended for most water-based treatments before returning the treated area to normal use or before exposure to rain or other water. Ideally, 3-5 days is even better.

Products	Chemical Name	CAS #	EIECS #	Appearance	Active Ingredient
SiSiB® WR0301	n-Propyltrimethoxysilane	1067-25-0	213-926-7	Clear, colorless	99%
SiSiB® WR0411	isobutyltrimethoxysilane	18395-30-7	242-272-5	Clear, colorless	98%
SiSiB® WR0412	isobutyltriethoxysilane	17980-47-1	402-810-3	Clear, colorless	98%
SiSiB® WR0801	n-Octyltrimethoxysilane	3069-40-7	221-338-7	Clear, colorless	98%
SiSiB® WR0802	n-Octyltriethoxysilane	2943-75-1	220-941-2	Clear, colorless	98%
SiSiB® WR0812	iso-Octyltriethoxysilane	35435-21-3	252-558-1	Clear, colorless	98%
SiSiB® WR0818	iso-Octyltriethoxysilane Cream	35435-21-3	252-558-1	Creamy, white	80%
SiSiB® WR0777	Potassium Methyl Siliconate	31795-24-1	250-807-9	Clear, colorless	42~52%**
SiSiB® WR0772	Sodium Methyl Siliconate	16589-43-8	240-648-3	Clear, colorless	30%**
SiSiB® WR2020	Methyl hydrogen polysiloxane	63148-57-2	N.A.	Clear, colorless	100%
SiSiB® WR1001	Silane / Siloxane Emulsions	N.A.	N.A.	Milky, white	42%
SiSiB® WR4004	Silane / Siloxane Emulsions	N.A.	N.A.	Milky, white	42%
SiSiB® WR1290	Silane / Siloxane Formulations	N.A.	N.A.	Hazy, colorless	100%

Products	Dilution	Substrate	Benefits	Equivalent
SiSiB® WR0301	Solvent	Concrete	Protect reinforced concrete from chlorine attack	DowCorning Z6264.
SiSiB® WR0411	Solvent	Concrete	Protect reinforced concrete from chlorine attack	DowCorning Z-2306, Evonik IBTMO
SiSiB® WR0412	Solvent	Concrete	Protect reinforced concrete from chlorine attack	DowCorning Z-6403, Evonik IBTEO
SiSiB® WR0801	Solvent	Alkaline substrate such as new concrete	Contains small molecules that allow deep penetration; provides water repellency by bonding chemically with the substrate.	DowCorning Z-6665, Evonik OCTMO
SiSiB® WR0802	Solvent	Alkaline substrate such as new concrete	Contains small molecules that allow deep penetration; provides water repellency by bonding chemically with the substrate.	Silquest A-137, DowCorning Z-6341, Evonik OCTEO

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SiSiB® WR0812	Solvent	Concrete	Protect reinforced concrete from chlorine attack	Wacker IO-TRIETHOXY, Silres BS 1701
SiSiB® WR0818	Cream	Concrete	Protect reinforced concrete from chlorine attack	Wacker Silres BS CREME C
SiSiB® WR0777	Water	Neutral, bricks, ceramics, Roof Tiles, Perlite, Vermiculite	Water-dilutable solution gives water repellency to a variety of substrates.	DowCorning OFS-0777, Wacker Silres BS16, Rhodia Siliconate 51T
SiSiB® WR0772	Water	Neutral, bricks, ceramics, Roof Tiles, Perlite, Vermiculite	Water-dilutable solution gives water repellency to a variety of substrates.	DowCorning OFS-0772.
SiSiB® WR2020	Solvent	Gypsum	Hydrophobing treatment for plasterboard, plaster blocks, powders and granular materials.	Momentive TSF-484, Wacker Silres BS94, Rhodia Rhodoril H68, ShineTsu KF-99
SiSiB® WR1001	Water	Bricks, concrete, sand-lime brick, natural sandstone and mineral plasters	General purpose water repellents for impregnating and priming mineral surfaces.	Wacker Silres BS 1001
SiSiB® WR4004 (Formal SiSiB® WR0840)	Water	Bricks, sand-lime brick, natural sandstone and mineral plasters.	General purpose water repellents for impregnating and priming mineral surfaces. Excellent beading effect.	Wacker Silres BS 4004
SiSiB® WR1290	Solvent	Brickwork all kinds of concrete aerated concrete sand-lime brickwork cement fiberboards mineral plasters mineral-based natural and artificial stone mineral paints	General purpose impregnating and priming agent for mineral and strongly alkline substrates.	Wacker Silres BS 290