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SISIB SILICONES

A part of SINOPCC group.



Silicone Water Repellents





SISIB SILICONES

SISIB SILICONES, a part of SINOPCC group established in 1989, is one of the leading manufacturers in silicone industry, focusing on the development and manufacture of silanes and silicones.

Strategically positioned within the silicone supply chain, SiSiB SILICONES provide a comprehensive range of performance-enhancing products and solutions to meet the need of customers. These include silanes and siliconates, silicone fluids, silicone emulsions, silicone rubber, silicone gum and fumed silica.

Today our products are used successfully throughout the wold in the adhesives and sealants, agriculture, artificial marbles, building protection, coatings & paints, fillers & pigments, foundries, fiber glass, leather & textile, lubricants, personal care, pharmaceuticals, plastics & thermoplastics, polyurethane foam, rubber & tyre, wires & cables.

■ Why select SiSiB SILICONES?

- Strong silane and silicone manufacturing capabilities built over 30+ years history.
- Flexible manufacturing facility able to handle kilograms to thousands of tons per years.
- Rapid and professional process development and scale-up capabilities.
- Offer tailored options while adhering to high quality and safety standards.





Silicone Water Repellent

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:

Creme Based:

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

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 onsite, and cleanup of tools and equipment is very easy.

Silicone Water Repellent

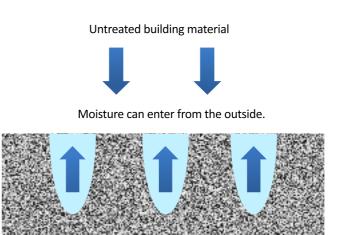




Solvent Based:

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 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.



After silane water repellent treatment Resistance External moisture cannot enter

Water vapor can escape from the inside.

Water vapor can escape from the inside.

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%
SiSiB® WR5050	Silane / Siloxane Powder	N.A.	N.A.	White powder	50%

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Products	Dilution	Substrate	Benefits	Equivalent
SiSiB® WR0301	Solvent	Concrete	Protect reinforced concrete from	DowCorning Z-6264.
			chlorine attack	
SiSiB® WR0411	Solvent	Concrete	Protect reinforced concrete from	DowCorning Z-2306,
			chlorine attack	Evonik IBTMO
SiSiB® WR0412	Solvent	Concrete	Protect reinforced concrete from	DowCorning Z-6403,
			chlorine attack	Evonik IBTEO
SiSiB® WR0801	Solvent	Alkaline substrate	Contains small molecules that	DowCorning Z-6665,
		such as new	allow deep penetration; provides	Evonik OCTMO
		concrete	water repellency by bonding	
			chemically with the substrate.	
SiSiB® WR0802	Solvent	Alkaline substrate	Contains small molecules that	Silquest A-137,
		such as new	allow deep penetration; provides	DowCorning Z-6341,
		concrete	water repellency by bonding	Evonik OCTEO
			chemically with the substrate.	
SiSiB® WR0812	Solvent	Concrete	Protect reinforced concrete from	Wacker IO-TRIETHOXY,
			chlorine attack	Silres BS 1701
SiSiB® WR0818	Cream	Concrete	Protect reinforced concrete from	Wacker
			chlorine attack	Silres BS CREME C
SiSiB® WR0777	Water	Neutral, bricks,	Water-dilutable solution gives	DowCorning OFS-0777,
		ceramics, Roof	water repellency to a variety of	Wacker Silres BS16,
		Tiles, Perlite,	substrates.	Rhodia Siliconate 51T
		Vermiculite		
SiSiB® WR0772	Water	Neutral, bricks,	Water-dilutable solution gives	DowCorning OFS-0772.
		ceramics, Roof	water repellency to a variety of	
		Tiles, Perlite,	substrates.	
		Vermiculite		

Silicone Water Repellent



Products	Dilution	Substrate	Benefits	Equivalent
SiSiB® WR2020	Solvent	Gypsum	Hydrophobing treatment for	Momentive TSF-484,
			plasterboard, plaster blocks,	Wacker Silres BS94,
			powders and granular materials.	Rhodia Rhodoril H68,
				ShineTsu KF-99
SiSiB® WR1001	Water	Bricks, concrete,	General purpose water repellents	Wacker Silres BS 1001
		sand-lime brick,	for impregnating and priming	
		natural sandstone	mineral surfaces.	
		and mineral plasters		
SiSiB® WR4004	Water	Bricks, sand-lime	General purpose water repellents	Wacker Silres BS 4004
		brick, natural	for impregnating and priming	
		sandstone and	mineral surfaces. Excellent	
		mineral plasters.	beading effect.	
SiSiB® WR1290	Solvent	Brickwork all kinds of	General purpose impregnating and	Wacker Silres BS 290
		concrete aerated	priming agent for mineral and	
		concrete sand-lime	strongly alkline substrates.	
		brickwork cement		
		fiberboards mineral		
		plasters		
		mineral-based		
		natural and artificial		
		stone mineral paints		
SiSiB® WR5050	Powder	Cementitious drymix	Easy to mix in powdered	Evonik Siltren P-750
		applications, like	composition;	Dowsil GP SHP 50
		concrete, stucco,	Increase water repellency with no	BYK Optibent NT-10
		plaster, grout, and	post-treatment required.	
		mortar.		

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