PCC GROUP

A part of PCC group.

SiSiB SILICONES

Construction Protection Water Repellent

Silicone Fluid Silicone Emulsion Silicone Finish

Coating & Paint Leveling Agent Anti-graffiti

Surfactant Agricultural Adjuvant

Fumed Silica Silicone Polymer Silicone Rubber

Persoal Care Elastomer Silicone Wax

Organosilane Silane grafted PE

Surfactant Foam Stabilizer Antifoam

Silicone Grease Silicone Resin

Plastic Additives Masterbatch Siloxane Powder

A part of PCC group.

SiSiB SILICONES

Nanjing SiSiB Silicones Co., Ltd.
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Phone: +86-25-5859-9930, 9931, 9932
Fax: +86-25-5859-9935
Email: sales@SiSiB.com
www.SiSiB.com www.PCC.asia
SiSiB SILICONES, a part of PCC group, is one of the leading manufacturers of silicones. It has one major intermediates production site for upstream applications and six downstream production units in China.

With over 27 years’ experience in silicones, SiSiB SILICONES offer a complete range of silicone products in the areas of organofunctional silanes (Silane Coupling Agents, Silane Crosslinkers, Silane Blocking Agents), silicone fluids (Straight, Modified), silicone rubbers (Gum, HTV, RTV and LSR), silicone resins and fumed silica. SiSiB SILICONES have been marketed across Europe, America and Asia Pacific, totally over 100 countries.

RESEARCH & DEVELOPMENT
We think R&D as the key to our technology leadership and future markets. To promote the continuous innovation of our technology and process, we also cooperate with several famous universities, like Nanjing University of Chemical Technology, Wuhan University and etc.

QUALITY ASSURANCE
We consider quality control extremely important for a featured producer to provide stable and high-quality products. We possess perfect production facilities, precise testing equipment and large-scale laboratories. Also we take great effort to enhance every employee’s awareness of the significance of products’ quality. All of these factors guarantee the quality of our products. We have been ISO9001: 2008 certificated by SGS. And we will continue to improve levels of quality-control to meet or even exceed the demands of our customers.

ENVIRONMENT & SAFETY
We usually give top priority to the policy of "safety and environmental protection first" during all the activities. Accordingly, we have adopted many powerful environmental objectives. We not only try our best to economize our energy and material resources, but also continuously improving our process to ensure to meet legal requirements. Now all of our plants have been certified by ISO14001.

QUALITY & LOWER PRICE IS OUR COMMITMENT
SERVING OUR CUSTOMER
Basing on loyalty and honesty, we always hold the aim to satisfy customers with efficient technical support, high quality products and favorable trade terms. You are warmly welcomed to cooperate with us for a brighter future.
SiSiB SILICONES

Silicone Fluids

Dimethyl Silicone Fluid
SiSiB® MF2010 [CAS 63148-62-9]

H₂C O CH₃ H₃C CH₃

Diethyl Silicone Fluid
SiSiB® EF2010 [CAS 63148-41-8]

CH₃ O CH₂CH₃ H₃C CH₃

Cyclomethicones
SiSiB® CF1040: D4
SiSiB® CF1050: D5
SiSiB® CF1060: D6
SiSiB® CF1045: D4/D5=70/30
SiSiB® CF1046: D5/D6=65/35

Fluoro Silicone Fluid
SiSiB® FF9020 [CAS 63148-56-1]

H₂C O CH₂CH₂CF₃ H₃C CH₃

Vinyl Fluoro Silicone Fluid
SiSiB® VF6960 [CAS 68951-98-4]

H₂C O CH₂CH₂CF₃ H₃C CH₃

Hydroxy Fluoro Silicone Fluid
SiSiB® OF9020

H₂O CH₂CH₂CF₃ H₃C CH₃

Hydroxy (Silanol) Silicone Fluid
SiSiB® OF0025, OF0156A, OF0156B [CAS 70131-67-8]

Hydrogen Silicone Fluid
SiSiB® HF2030 [CAS 70900-21-9]

SiHC O CH₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF2035 [CAS 68037-59-2]

H₂O CH₂CH₂CF₃ H₃C CH₃

Silicone Fluids

Methyl Hydrogen Silicone Fluid
SiSiB® HF2020 [CAS 63148-57-2]

SiHC O CH₃ H₃C CH₃

Hydrogen Terminated Silicone Fluid
SiSiB® HF2030 [CAS 70900-21-9]

H₂O CH₂CH₂CF₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF2050 [CAS 66037-59-2]

SiHC O CH₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF2060 [CAS 69013-23-6]

SiHC O CH₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF2038

SiHC O CH₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF2078 [CAS 6895-30-7]

SiHC O CH₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF2080

SiHC O CH₃ H₃C CH₃

Hydrogen Silicone Fluid
SiSiB® HF0025, OF156A, OF156B [CAS 70131-67-8]
SiSiB® silicone fluids include:

- **Phenyl Silicone Fluid**
  - SiSiB® PF8802 [CAS 66817-59-2]
    - 1,3-Diphenyl-1,1,3,3-tetrais(dimethylsiloxy)-disiloxane
  - SiSiB® PF8806 [CAS 70131-69-0]
    - Phenyl tri(dimethylsiloxy) silane

- **Diffusion Pump Fluids**
  - SiSiB® PF8250, PF8255
    - 1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane
  - SiSiB® PF8704 [CAS 3982-82-9]
    - 1,1,3,5,5-Pentaphenyl-1,3,5-Tetramethyltrisiloxane
  - SiSiB® PF8705 [CAS 3390-61-2]
    - 1,1,3,5,5-Pentaphenyl-1,3,5-Tetramethyltrisiloxane
  - SiSiB® PF8710 [CAS 9005-12-3]
    - 1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane

- **Hydroxypropyl Silicone Fluid**
  - SiSiB® OF1300
    - 1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane
  - SiSiB® OF6050 [CAS 67923-19-7]
    - 1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane

- **Hydroxy Terminated Methyl Vinyl Silicone Fluid**
  - SiSiB® VF6030 [CAS 68083-19-2]
    - 1,1,3,5,5-Pentaphenyl-1,3,5-Tetramethyltrisiloxane
  - SiSiB® VF6070 [CAS 67762-94-1, 68083-18-1]
    - 1,1,3,5,5-Pentaphenyl-1,3,5-Tetramethyltrisiloxane

- **Vinyl Silicone Fluid**
  - SiSiB® VF6030 [CAS 68083-19-2]
  - SiSiB® VF6070 [CAS 67762-94-1, 68083-18-1]

- **Phenyl Methyl Silicone Fluid**
  - SiSiB® PF8250, PF8255
  - SiSiB® PF8704 [CAS 3982-82-9]
    - 1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane
  - SiSiB® PF8705 [CAS 3390-61-2]
    - 1,1,3,5,5-Pentaphenyl-1,3,5-Tetramethyltrisiloxane
  - SiSiB® PF8710 [CAS 9005-12-3]
    - 1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane

- **Alkoxy Silicone Fluid**
  - SiSiB® PF2110 [CAS 142982-20-5]
  - SiSiB® PF2120

**Silicone Fluids**
SiSiB® SILICONES

Silane Crosslinkable Polyethylene Compound

- Sioplas Method Silane-XLPE Compound for wires and cables up to 3kV
- Monosil Method Silane-XLPE Compound for wires and cables up to 3kV
- Sioplas Method Silane-XLPE Compound for aerial wires and cables up to 10kV
- Monosil Method Silane-XLPE Compound for aerial wires and cables up to 10kV
- Self-crosslinking Silane-XLPE Compound for wires and cables up to 3k
- Self-crosslinking Silane-XLPE Compound for aerial wires and cables up to 10kV

Siloxane Additives for Plastic

- Siloxane Masterbatch
  - Easy to handle additives of ultra high molecular weight siloxane in various thermoplastic resin carriers
- Siloxane Powder
  - Siloxane powders (also known as resin modifiers) are 100% active, free-flowing powders available in both non-reactive and organically reactive grades of special ultra high molecular weight siloxane polymers with fumed silica.
- Anti-Scratch Masterbatch

Silicone Rubber

- Heat Cured Rubber (Precipitated Silica Based)
  - High Grade Molding
  - Economical Molding
  - Extrusion
  - High Bound Resilience
- Heat Cured Rubber (Fumed Silica Based)
  - High Strength
  - High Transparency & Strength
  - High Tear Strength
  - Extrusion
  - High Bound Resilience
- Heat Cured Rubber (Special Application)
  - Flame Retardant
  - Oil Resistant
  - Heat Resistant
  - Self-Lubricated
  - High Strength Self-Lubricated
  - High Voltage Insulator
  - Low Hardness
- Liquid Silicone Rubber
  - General Purpose
  - High Transparency & High Strength
  - High Strength
  - Base Compound for Silicone Ink
  - Base Compound for Silicone Vanish
- Fluoro Silicone Rubber
  - General Purpose
  - High Tear Strength
  - Special Purpose (Turbocharger Tube)
  - Special Purpose (O-Ring)
  - High Temperature
  - Low Compression Set
- Silicone Gum
  - Methyl Silicone Gum
  - Vinyl Silicone Gum
  - Phenyl Silicone Gum
  - Fluoro Silicone Gum

Silane Terminated Polymer

- Silane-modified polymers have been used to formulate sealants since the late 1980s. The major advantage of this class of polymers is that they combine the outstanding properties of silicones with those of polyurethanes.
- Sihat® STP-31020 has advantages of high activity, long elongation, good elasticity, suitable for construction sealants.
- Sihat® STP-51280 has good storage stability, suitable for industrial medium and high modulus sealants.
- Sihat® STP-71280 has lower viscosity, high hardness, suitable for industrial high modulus sealants.
Silicone Surfactant for Agriculture (Adjuvant)

SiSiB® ASS8408 [CAS 67674-67-3]
- It is a super-spreading surfactant based on polyether modified trisiloxane. It lowers the surface tension of spray solutions, beyond that which is achievable with conventional adjuvants.

SiSiB® ASS8277 [CAS 27306-78-1]
- It is a super-spreading surfactant based on polyether modified trisiloxane. It lowers the surface tension of spray solutions, beyond that which is achievable with conventional adjuvants.

SiSiB® ASS8806 [CAS 134180-70-6]
- It is a superspreading surfactant based on trisiloxane alkoxylate. It lowers the surface tension of spray solutions, beyond that which is achievable with conventional adjuvants.

SiSiB® ASS8309 [CAS 125997-17-3]
- It is a nonionic surfactant that has been specifically designed to enhance the efficacy of pesticides. It is particularly effective when used with water-soluble and post-emergent herbicides.

SiSiB® ASS8211 [CAS 67674-67-3]
- It is a low molecular weight nonionic silicone polyether surfactant (superwetting agent), can improve the wetting, spreading and penetration of agricultural chemicals.

SiSiB® ASS8560
- It is an alkyl modified trisiloxane, can improve the coverage of oils. It is designed for delivery of oil-based pesticide formulations.

Silicone Surfactant (PU Additives)

- Rigid Foam Stabilizer
- Rigid Foam Cell Opener
- Slabstock Foam Stabilizer
- Flexible Foam Stabilizer
- Shoe Sole Foam Stabilizer

Silicone Finishes (Softeners) for Textile

- Pendant Amino Polyether Silicone Fluids
- Novel Block - Linear (AB)n Silicone Fluid
- Hydrophilic Amino silicone Emulsion
- Hydrophilic Silicone Fluid
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:

**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.

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**Creme Based:**

It reduces 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.

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**SiSiB® WR0301** n-Propyltrimethoxysilane 1067-25-0 Clear, colorless 99%

**SiSiB® WR0411** isobutyltrimethoxysilane 18395-30-7 Clear, colorless 98%

**SiSiB® WR0412** isobutyltriethoxysilane 17980-47-1 Clear, colorless 98%

**SiSiB® WR0801** n-Octyltrimethoxysilane 3069-40-7 Clear, colorless 98%

**SiSiB® WR0802** n-Octyltriethoxysilane 2943-75-1 Clear, colorless 98%

**SiSiB® WR0812** iso-Octyltriethoxysilane 35435-21-3 Clear, colorless 98%

**SiSiB® WR0818** iso-Octyltriethoxysilane Cream 35435-21-3 Creamy, white 80%

**SiSiB® WR0777** Potassium Methyl Siliconate 31795-24-1 Clear, colorless 42~52%**

**SiSiB® WR0772** Sodium Methyl Siliconate 16589-43-8 Clear, colorless 30%**

**SiSiB® WR2020** Methyl hydrogen polysiloxane 63148-57-2 Clear, colorless 100%

**SiSiB® WR1001** Silane / Siloxane Emulsions N.A. Milky, white 42%

**SiSiB® WR4004** Silane / Siloxane Emulsions N.A. Milky, white 42%

**SiSiB® WR1290** Silane / Siloxane Formulations N.A. Hazy, colorless 100%
### Silicone Water Repellent

<table>
<thead>
<tr>
<th>Products</th>
<th>Dilution</th>
<th>Substrate</th>
<th>Benefits</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SiSiB® WR0301</td>
<td>Solvent</td>
<td>Concrete</td>
<td>Protect reinforced concrete from chlorine attack</td>
<td>DowCorning Z6264,</td>
</tr>
<tr>
<td>SiSiB® WR0411</td>
<td>Solvent</td>
<td>Concrete</td>
<td>Protect reinforced concrete from chlorine attack</td>
<td>DowCorning Z-2306,</td>
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<tr>
<td>SiSiB® WR0412</td>
<td>Solvent</td>
<td>Concrete</td>
<td>Protect reinforced concrete from chlorine attack</td>
<td>Evonik IBTEO</td>
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<tr>
<td>SiSiB® WR0861</td>
<td>Solvent</td>
<td>Alkaline substrate such as new concrete</td>
<td>Contains small molecules that allow deep penetration; provides water repellency by bonding chemically with the substrate.</td>
<td>DowCorning Z-6665,</td>
</tr>
<tr>
<td>SiSiB® WR0802</td>
<td>Solvent</td>
<td>Alkaline substrate such as new concrete</td>
<td>Contains small molecules that allow deep penetration; provides water repellency by bonding chemically with the substrate.</td>
<td>Silquest A-137,</td>
</tr>
<tr>
<td>SiSiB® WR0812</td>
<td>Solvent</td>
<td>Concrete</td>
<td>Protect reinforced concrete from chlorine attack</td>
<td>Wacker IO-TRIETHOXY,</td>
</tr>
<tr>
<td>SiSiB® WR0818</td>
<td>Cream</td>
<td>Concrete</td>
<td>Protect reinforced concrete from chlorine attack</td>
<td>Wacker Silres BS CREME C</td>
</tr>
<tr>
<td>SiSiB® WR0777</td>
<td>Water</td>
<td>Neutral, bricks, ceramics, Roof Tiles, Perlite, Vermiculite</td>
<td>Water-dilutable solution gives water repellency to a variety of substrates.</td>
<td>DowCorning OFS-0777,</td>
</tr>
<tr>
<td>SiSiB® WR0772</td>
<td>Water</td>
<td>Neutral, bricks, ceramics, Roof Tiles, Perlite, Vermiculite</td>
<td>Water-dilutable solution gives water repellency to a variety of substrates.</td>
<td>Wacker Silres BS 51T</td>
</tr>
<tr>
<td>SiSiB® WR2020</td>
<td>Solvent</td>
<td>Gypsum</td>
<td>Hydrophobing treatment for plasterboard, plaster blocks, powders and granular materials.</td>
<td>Momentive TSF-484,</td>
</tr>
<tr>
<td>SiSiB® WR1001</td>
<td>Water</td>
<td>Bricks, concrete, sand-lime brick, natural sandstone and mineral plasters</td>
<td>General purpose water repellents for impregnating and priming mineral surfaces.</td>
<td>Wacker Silres BS 1001</td>
</tr>
<tr>
<td>SiSiB® WR4004</td>
<td>Water</td>
<td>Bricks, sand-lime brick, natural sandstone and mineral plasters.</td>
<td>General purpose water repellents for impregnating and priming mineral surfaces. Excellent beading effect.</td>
<td>Wacker Silres BS 4004</td>
</tr>
<tr>
<td>SiSiB® WR1280</td>
<td>Solvent</td>
<td>Brickwork all kinds of concrete aerated concrete sand-lime brickwork cement fiberboards mineral plasters mineral-based natural and artificial stone mineral paints</td>
<td>General purpose impregnating and priming agent for mineral and strongly alkaline substrates.</td>
<td>Wacker Silres BS 290</td>
</tr>
</tbody>
</table>

### Additives for Coating & Paint

- **KOBOND™ Polylacrylate leveling agent**
  - Polyacrylate surface control additives based on special designed acrylic monomers with low surface tension. These additives can improve flow and leveling.

- **ADDIL™** Polyether modified silicone leveling agent
  - Polyalkoxilanes (silicones) have a very high surface activity and therefore are often used as surface control additives. Commercial silicone based surface control additives are modified by polyethers, polyesters or alky side groups to improve recoatability and intercoat adhesion. Modification parameters are silicone content, molecular weight and modification degree.

- **ADDIL™** Reactive silicones
  - Hydroxy Functional silicone
  - Epoxy Functional silicone
  - Acrylate Functional silicone
  - Reactive silicones can be incorporated into polymers, and provide increased flexibility, stain resistance and improve surface wetting.

- **KOBOND™** Fluorocarbon modified polylacrylate leveling agent
  - It can improve flow and leveling, not stabilize the foam, not affect the recoatability and can effective reduce surface tension, improve substrate wetting and anti-crater.

- **ADDIL™** Substrate wetting agent
  - Short chain polyether silicones are used primarily to reduce surface tension in waterborne coatings. Longer chain polyether silicones are better in in solventborne and UV coatings.

- **ADDIL™** Silicone Free Defoamers
  - Silicone Free Defoamers

- **ADDIL™** Defoamer
  - Silicone Based Defoamers

- **ADDIL™** Anti-graffiti and easy-clean additives
  - Polyalkoxilanes provide anti dirt pick up and easy cleaning effect. OH-groups allow cross-linking into many reactive binder systems (permanent).

### Fumed Silica

<table>
<thead>
<tr>
<th>Product Name</th>
<th>BET surface area (m²/g)</th>
<th>Loss on drying [wt. %]</th>
<th>pH value</th>
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</thead>
<tbody>
<tr>
<td>SiSiB® FS0100</td>
<td>100 ± 15</td>
<td>Max. 1.5%</td>
<td>3.6-4.3</td>
</tr>
<tr>
<td>SiSiB® FS0130</td>
<td>130 ± 15</td>
<td>Max. 1.0%</td>
<td>3.6-4.3</td>
</tr>
<tr>
<td>SiSiB® FS0150</td>
<td>150 ± 15</td>
<td>Max. 1.0%</td>
<td>3.6-4.3</td>
</tr>
<tr>
<td>SiSiB® FS0200</td>
<td>200 ± 15</td>
<td>Max. 2.0%</td>
<td>3.6-4.3</td>
</tr>
<tr>
<td>SiSiB® FS0250</td>
<td>250 ± 15</td>
<td>Max. 2.0%</td>
<td>3.6-4.3</td>
</tr>
<tr>
<td>SiSiB® FS0300</td>
<td>300 ± 15</td>
<td>Max. 2.0%</td>
<td>3.6-4.3</td>
</tr>
<tr>
<td>SiSiB® FS0380</td>
<td>380 ± 15</td>
<td>Max. 2.5%</td>
<td>3.6-4.3</td>
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</tbody>
</table>