



## Kingfisher Product Data Sheet

# Supersilicon

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### Description

Kingfisher “Supersilicon” is a breathable (vapour permeable) 2 x COAT solvent-borne, silane-siloxane waterproofing treatment designed to stop lateral penetrating damp in exterior brickwork, stonework, mortar joints and most porous facing materials above ground level. It is a penetrating sealer which works by lining the capillary channels with a hydrophobic silicone barrier that greatly reduces moisture absorption from rain and other moisture sources. The hydrophobic nature of Kingfisher “Supersilicon” also helps to keep building exteriors clean.

### Companion or related products:

- Kingfisher “Bio-Wash”
- Kingfisher “Pointing Mortar”
- Kingfisher “Pointing Solution”

Refer to these individual product data sheets for detailed application guidance – published on our website [www.kingfisheruk.com](http://www.kingfisheruk.com)

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### Uses

Kingfisher “Supersilicon” is an effective surface treatment used to protect walls and buildings from the detrimental effects of long-term moisture penetration on vertical or steeply pitched surfaces.

### Specific applications include:

#### 1. Protection from weather damage.

Most common building materials (brick/ stone/ mortar / block) are mineral based and therefore prone to moisture absorption, especially when exposed to the elements for long periods of time. Water is a persistent invader which will find tiny fissures/ cracks in masonry and gradually work its way deeper and deeper into the fabric of the building. This moisture ingress is exacerbated by the freeze / thaw cycle which spalls masonry and further expands the tiny cracks and fissures in a continuous cycle of decay. Kingfisher “Supersilicon” creates an invisible hydrophobic barrier which repels rainwater and prevents the moisture from absorbing in the first place.

#### 2. Protection from organic growth.

As weathering increases the porosity of masonry, moss and green mould can begin to take hold. Kingfisher “Supersilicon” inhibits moss and other organic growth by robbing it of water and nutrients drawn from damp masonry. This is an important factor because moss exacerbates water absorption by retaining moisture and sending damaging roots into the substrate.

### **3. Protection from penetrating damp.**

The factors described above can ultimately lead to penetrating dampness. Penetrating dampness occurs when moisture migrates all the way through the wall to the interior of the building – often during periods of prolonged heavy rain when the walls are continuously absorbing water. This “mass water” absorption combined with capillary action shows up on internal decorative finishes as damp patches on plaster, peeling wallpaper, salt damage, black mould etc. It is often accompanied by an unpleasant musty odour. Kingfisher “Supersilicon” stops penetrating damp by eliminating “mass water” penetration.

### **4. Reduces condensation.**

Even if a wall is not actually leeching moisture all the way through to the internal plaster (penetrating damp), partial saturation can still cause “cold bridging” whereby exterior cold is transmitted through the wall to the interior causing a “cold spot”. Drying out with “Kingfisher “Supersilicon” reduces the problem of warm moist indoor air condensing on the “cold spot” surface and breeding black mould growth.

### **5. Keeps buildings cleaner.**

Damp porous surfaces tend to readily absorb airborne dirt, carbon and other pollutants which are then dissolved in rainwater and carried into the top 1 to 3 mm of the masonry. This dirt builds up over time and can lead to unattractive dark stains. Kingfisher “Supersilicon” has a molecular structure that prevents moisture absorption thus breaking the cycle and does not change the colour of the material to which it is applied.

### **6. Reduces evaporative heat loss**

Using Kingfisher “Supersilicon” to dry out a damp wall can also reduce evaporative thermal loss because a wet wall is a cold wall and “bleeds” heat to atmosphere faster than a dry wall.

### **7. Efflorescence control (salt staining)**

A common problem which blights the aesthetic appeal of many properties is “efflorescence” or “salting” which is the unsightly, white staining we see on so many “new build” walls. This occurs because walls are built of mineral based products including clay, sand and cement, all of which come from the ground, which in turn is naturally full of chlorides (salts). These salts only come out of the masonry “in solution” i.e. when the surface gets wet from rainfall etc. As the wall dries out after rain, the water evaporates leaving the white salt crystals. Kingfisher “Supersilicon” can help by limiting the moisture absorption / evaporation cycle which leaves mineral salts deposited on the surface. Please call us for detailed advice on treating efflorescence.

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## **Advantages**

- 1.** Stops driving rain and moisture from pushing through walls to damage internal plaster finishes.
- 2.** Once cured it leaves NO surface “sheen” or “finish”, rendering it for all practical purposes, an invisible protection which does not darken or otherwise spoil the stone or brickwork.
- 3.** Kind to limestone which can be darkened by common stearate water-seals.
- 4.** Easy to apply without specialist equipment or skills.

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## **Surface Preparation**

In general, it is very important that the surface to be treated is dry and masonry joints are sound, free from cracks and that all organic growth and accumulated contaminants are removed before application.

As with all surface treatments you should apply to a small test area to check for compatibility before proceeding to full application.

### **1. Cleaning**

Remove all loose moss, mould and dirt by gently washing, scrubbing or wire brushing the affected areas. Where the wall is contaminated with white efflorescence (salts) you should clean these with Kingfisher "Eco Brick Cleaner". Calcified salt deposits may need to be removed with a cold chisel.

### **2. Sanitise with Kingfisher "Biocidal Wash"**

Having cleaned the wall down and removed all visible traces of organic growth you should spray the entire surface with Kingfisher "Biocidal Wash". This effective fungicidal wall solution is designed specifically to neutralise moss and mould root systems/ spores so that they do not re-grow.

### **3. Re-Point**

Your cleansed and biocide treated wall is now ready for re-pointing and any other necessary repairs. The re-pointing is extremely important as rainwater ingress through defective pointing is one of the most common causes of penetrating dampness. Rake out all loose mortar so that you work back to a sound substrate bed and re-point using Kingfisher "Pointing Solution" in your mortar mix to massively improve adhesion, strength and water resistance. Where an entire wall needs to be re-pointed, we recommend using Kingfisher "Pointing Mortar" to help achieve uniform colour continuity.

### **4. Masking off and temporary precautions.**

Kingfisher "Supersilicon" is a silane-siloxane dispersion in white spirit (flammable) and has an odour similar to white spirit. You should therefore take sensible precautions prior to application to exclude it from the indoor space including: close all windows, shut trickle vents, check mastic joints are in good condition and temporarily cover air brick vents and any other vents, cracks or apertures which might permit the passage of Kingfisher "Supersilicon" into the building. You must exclude all sources of ignition e.g. Make sure that all warm external flues (e.g. for central heating boiler) are cool during application. You should also mask off windows / doors to avoid contamination of glazed surfaces.

### **Application**

1. Kingfisher "Supersilicon" is supplied ready to use and can be applied to the substrate by low pressure sprayer\* or paint brush. For optimal results we recommend 2 x coats with a re-coat interval of 3 to 4 hours at 20 deg. C or when the surface appears dry.
2. Kingfisher "Supersilicon" should be applied to refusal. The liquid is of a watery consistency and therefore to limit wastage we recommend beginning application at the highest point. This approach works with the product's natural tendency to run or drip, allowing it to find its own path, ensuring full saturation.
3. Pay particular attention to window lintels, ledges and reveals as these are common sources of moisture ingress and must be generously treated.
4. You should take sensible precautions to guard against overspray or drips onto glass or proximate vehicle finishes. If applying by spray use a "solvent resistant" \* pump sprayer or professional applicators can use a standard Damp Proofer's pump with spray lance attachment. The wall should be completely dry for at least 24 hours prior to application and no rain should be expected for 24 hours post application. You should expect some residual odour for 24 to 48 hours post application.

\* See Kingfisher website for current solvent resistant sprayer range.

## Clean Up

Brushes can be cleaned in Kingfisher "Solvent No.2" but disposable rollers should be allowed to cure fully before being discarded.

Spray equipment must be thoroughly flushed with Kingfisher "Solvent No.2" before being stored away. If the sealer should become accidentally moisture contaminated during application or drying, this will result in white staining (oil & resin mixing with water). This can be remediated with Kingfisher "Solvent No.2" and you should refer to the relevant Product Data Sheet on our website for detailed instructions.

## Product Data

Appearance	Clear liquid, translucent
Coverage	4 - 6 m <sup>2</sup> / litre per coat
Initial Cure	3 - 4 hours @ 20°C
Time between coats	3 - 4 hours at 20°C
Number of coats	2 (Two)
Full cure	24 hours at 20°C
Application temperature	+6°C to +25°C
Service temperature	-20°C to +50°C
Shelf life	24 Months

## Packaging

Kingfisher "Supersilicon" is supplied in 5 litre cans and 25 litre drums.

## Storage

Kingfisher "Supersilicon" is flammable. Store in original packaging in a cool dry place, out of direct sunlight, away from sources of ignition. Keep out of reach of children. **NO SMOKING.**

## Shelf Life

The product has a shelf life of 24 months from the date of manufacture, subject to correct storage conditions.

## HEALTH & SAFETY

- If applying by spray wear a face mask and eye protection.
- Wear disposable gloves and overalls during preparation and application.
- Avoid contact with skin and eyes.
- If contact occurs wash immediately with plenty of water.
- Keep out of reach of children.
- Ensure good ventilation during application and drying.
- Always dispose of empty packaging responsibly.

- The product is flammable so do not apply near sources of ignition. NO SMOKING.
- Contains solvent aromatic middle distillate and is classified as harmful.
- Keep children and pets away from treated areas until fully cured.
- Do not allow run off to contaminate drains, waterways or planted areas.

Before using this product read the Material Safety Data Sheet which can be obtained at [www.kingfisheruk.com](http://www.kingfisheruk.com) or by calling the Kingfisher Technical Dept. Tel: 01229 869 100.

The information given in this product data sheet is given in good faith, based on current knowledge and experience. It relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of the company's knowledge and belief, accurate as of the date indicated. All recommendations are made without warranty or guarantee, as to accuracy, reliability or completeness since the conditions of use are beyond our control. It is the user's responsibility to satisfy themselves as to the suitability and application of such information for their own use.