

# Masonry Water Repellent

# SILICONE CONCENTRATE

## TECHNICAL DATA

### 1.0 DESCRIPTION

This is a potassium methyl siliconate which changes to a silicone on exposure to atmosphere. SILICONE CONCENTRATE is formulated for use on soft porous materials such as calcareous stones (including Oamaru Stone), sandstone, Gypsum Plaster, Terra-cotta, low-fired ceramic products including roof tiles, facing bricks, flower pots, etc. It is not recommended for application to normal or reinforced concrete; use AQUELLUX S.

These materials all absorb water to varying degrees. This leads to problems with surface contaminants such as growth of micro-organisms, discolouration and efflorescence. In-plant treatment of these materials with SILICONE CONCENTRATE helps prevent efflorescence, helps to inhibit algal growth and imparts water resistance. Because of its nature, SILICONE CONCENTRATE may be applied to damp surfaces.

**NB:** All uses & instructions for SILICONE CONCENTRATE on this data sheet refer to the product once properly diluted at the required dilution ratio (see section 4). Product must be diluted before use.

### 2.0 PROPERTIES

2.1. Shelf Life	1 year in sealed container.
2.2. Appearance	Clear/hazy liquid.
2.3. D.G. Classification:	8
2.4. pH, approximate:	13
2.5. Solids Content	>50%
2.6. Specific Gravity	1.4
2.7. Flashpoint	Not flammable
2.8. Coverage	See application.

### 3.0 USES

SILICONE CONCENTRATE is used to impart water repellency to a wide range of products including:

- Gypsum and gypsum-based plasterboards and aerated concrete (not normal or reinforced concrete – except during winter when the surface is damp and cannot be dried - see below)
- Calcareous stones (including Oamaru Stone) and sandstone
- Low-fired clay products immediately after they have been made. This includes flower pots, facing bricks, roof tiles and floor tiles

SILICONE CONCENTRATE helps to:

- Prevent growth of moss, lichen and mildew
- Prevent surface degradation due to dirt and soiling, etc and damage due to leakage and dampness
- Prevent efflorescence and leaching of salts

# SILICONE CONCENTRATE

## TECHNICAL DATA Continued

SILICONE CONCENTRATE can be applied to surfaces during winter which cannot be dried out. Apply SILICONE CONCENTRATE during a dry period, and it will help prevent further water penetration of the substrate therefore allowing it to dry out. For concrete and reinforced concrete, the surface must then be subsequently treated in summer with AQUELLUX S for long-term performance (refer AQUELLUX S data sheet).

SILICONE CONCENTRATE should not be applied to coloured construction materials as white deposits can form on the surface.

## 4.0 APPLICATION INSTRUCTIONS

- 4.1 Dilute SILICONE CONCENTRATE per the following table (guide only – test to determine optimum dilution rate). Mix the SILICONE CONCENTRATE into clean tap water with vigorous stirring.

Substrate	Dilution (with water)	Coverage (m <sup>2</sup> ) where applicable
Floor/Roof Tiles	1:50 – 1:70	Immerse for 45 seconds or 2m <sup>2</sup> and above if spraying.
Facing Bricks	1:100 – 1:300 <sup>1</sup>	Immerse for 15 - 60 seconds
Clay Bricks	1:25 – 1:100	Variable – test for effectiveness
Oamaru Stone	1:10	1 – 2m <sup>2</sup> per litre applied as two coats wet-on-wet.
Flower Pots	Variable	Variable – test for effectiveness
Other substrates	Variable	Variable – test for effectiveness

<sup>1</sup> Dilution depends on various factors and length of immersion. At lower dilution (higher strength), the time of immersion is lower however the concentration of active ingredient is higher. At higher dilution (lower strength), immersion should continue for 45 – 60 seconds. Generally, higher dilution rates are used where bonding of mortar to facing bricks may be an issue.

- 4.2 Apply flood coat to the surface, or immerse the material in SILICONE CONCENTRATE as indicated in the chart above. It is important to determine the optimum dilution ratio and immersion time or coverage for each substrate being treated. Water repellency will continue to develop over the next 3 – 7 days.
- 4.3 When spraying, apply using a low pressure airless spray – e.g., a pump-up garden sprayer. Ensure the material is applied in the form of droplets – do not mist. Start from bottom and work up, allowing a run-down to achieve full saturation of the surface. When a second coat is required, apply the second coat immediately after the first while the substrate is still wet with SILICONE CONCENTRATE. If applied from top of the surface, the run-down will dry and turn repellent, resulting in poor subsequent penetration and may cause unsightly run-down streaks. Do not apply SILICONE CONCENTRATE over a substrate previously treated with SILICONE CONCENTRATE.
- 4.4 When applying by spray, the entire section to be treated (such as a wall) must be treated in one application (of one or two coats as appropriate) as a further application when the first is dry will result in an unsightly and noticeable zone between the two applications.



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# SILICONE CONCENTRATE

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## TECHNICAL DATA Continued

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### 4.0 APPLICATION INSTRUCTIONS (Continued)

- 4.5 For Terra-cotta tiles, apply to saturation over the entire area, but avoid puddles as excess material may dry white.
- 4.6 For all applications, test the SILICONE CONCENTRATE by applying or immersing at the desired dilution ratio, allow to dry completely and check and accept the dried surface appearance and water repellency before continuing with full application. Uneven application, excessive application and run downs may result in white spots or streaks occurring which are extremely difficult or impossible to remove. Contact manufacturer to discuss specific application details.

### 5.0 PRECAUTIONS

**Note:** Product is corrosive. Avoid skin and eye contact. **Protect glass and new paint from contact with SILICONE CONCENTRATE in concentrate and diluted form.** Wear goggles and protective clothing and gloves. If on skin, wash off with plenty of water. If in eyes, immediately flush with plenty of water and seek medical attention. Read Safety Data Sheet before use.

Dilute before use. Do not use undiluted.

Test all surfaces to be treated before continuing with complete application. Uneven application, excessive application and run downs may result in white spots or streaks occurring or affect the ability of mortar to bond to the treated surface.

Avoid contact with all surfaces such as glass, aluminium, plants, etc that are not to be treated. If overspray occurs, immediately wash surface with water.

Store diluted material above 0°C. Avoid frost.

### 6.0 CLEAN UP

Clean all tools in hot water and detergent.

### 7.0 PACKAGING

SILICONE CONCENTRATE is available in 35kg containers.



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