



SikaGard® 680S

Solvented Anti-Carbonation Protective Concrete Coating

Technical Data Sheet

DESCRIPTION

SikaGard 680S is a one component solvented methacrylic flexible decorative anti-carbonation protective coating. Available as a coloured matt finish or "clear glaze" for exposed aggregate concrete.

USES

SikaGard 680S provides external protection against water ingress and carbonation to all types of concrete structures.

- * Building facades.
- * Car parks.
- * Bridges.

ADVANTAGES

- * **Protection**
Excellent resistance to water, frost, salts, carbonation and UV degradation.
- * **Durability**
Excellent resistance to weathering and ageing.
- * **Carbonation barriers**
Reduces the carbonation of concrete.
- * **Vapour permeable**
Allows concrete to maintain stable moisture content.
- * **Adhesion**
Excellent bond to concrete.
- * **Compatibility**
Compatible with all **Sika** Concrete Repair products and **Sika® FerroGard®** corrosion inhibitors.
- * **Decorative**
Available in any colour.
- * **Maintenance**
Re-coating approximately 15 years.
- * **Application**
One component easy to use and apply by brush, roller or spray.
- * BBA approved

Technical Data (typical)

Colours: Clear glaze : Clear
Coloured: Refer to colour chart and current price list for availability and minimum order quantities.

Specific gravity: 1.4 kg/litre (coloured)
0.9 kg/litre (clear)

Volume solids: 45% (coloured)
37% (clear)

Application temperatures & humidity conditions: +5°C min, +30°C max (substrate and ambient)
Observe dew point
RH ≤80%

Number of coats: 2 minimum

Recommended minimum total dry film thickness: Coloured: 130 microns (65 microns/coat)
Clear: 130 microns (65 microns/coat)

Water vapour/diffusion resistance: S_D (m) : 1.87 m (coloured) at a dft of 130 microns

CO₂ diffusion resistance: R(m) : 315 m (coloured) at a weathered dft of 100 microns
(4000 hours) Taywood Certificate No 4222

Fire properties: Class 1 surface (BS 476 Pt 1)

Overcoating times:

| Temp (°C) | Between coats (hrs) | Rain resistant (mins) | 700S/702W |
|-----------|---------------------|-----------------------|---------------------------------|
| 10 | 8 | 90 | (5 hrs min) (7 days max) |
| 20 | 5 | 60 | |
| 30 | 3 | 30 | |

All above values are approximate.

SURFACE PREPARATION

The substrate must be clean, sound, free from laitance, loose and friable particles, dirt and contaminants particularly oil, grease or waxes.

An existing sound and firmly adhering coating may be overcoated, subject to a test area to establish cleaning technique, compatibility and bond, otherwise complete removal is advised.

Preparation by adequate high pressure water jetting or blast cleaning is recommended.

Surface defects, blowholes etc on all substrate types should be prefilled using **Icoment®**, **MonoTop®** or **SikaTop®** reprofiling mortars to provide a defect free surface.

Allow mortars to dry for 3 - 5 days (24 hours - **Icoment 520**) before coating application. (Dependent on climatic conditions)

On reprofiled substrates a smooth steel float finish should be avoided on levelling/ pore filling coats. Provide a laitance free fine gripping surface using a plastic or wooden float.

SUBSTRATE PRIMING

* Porous/exposed aggregate substrates:

1 - 2 coats of **SikaGard 702W**

or

1 - 2 coats of **SikaGard 700S Aquastop**

* Dense/levelled substrates:

SikaGard 680S diluted upto 10% by weight with **Thinner C**.

APPLICATION

SikaGard 680S should be stirred thoroughly prior to application.

Apply **SikaGard 680S** by brush or roller to the dry primer. Airless spray is possible. Equipment trials are recommended.

MAINTENANCE

Clean down surface of all contaminants and apply refresher coat to the required dry film thickness.

IMPORTANT CONSIDERATIONS

- * **SikaGard 680S** is not suitable as a floor treatment or for continuous water immersion nor may it be applied to wet substrates.
- * Wear suitable protective clothing, gloves and eye protection.
- * Do not apply in direct sunlight, when dew point conditions prevail or the likelihood of frost.
- * Ensure substrate priming coats are thoroughly dry before overcoating.
- * Application of the coating should not commence if rain is imminent.
- * Light or bright colours may require additional coats to achieve optimum opacity or where opacity is reduced through thinning of the first coat. Determine by test area.
- * Overcoating existing coatings will affect the performance characteristics of **SikaGard 680S**.
- * Always ensure good ventilation.
- * Do not dilute **SikaGard 680S**.
- * **SikaGard 680S** Clear Glaze gives a permanent "wet look".

CLEANING

Application and mixing tools should be cleaned with **Thinner C** immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

MATERIAL CONSUMPTION

Theoretical dft consumptions per coat:

Coloured - 65 microns approx 0.20 kg/m² (0.14 litre/m²).

Clear - 65 microns approx 0.15 kg/m² (0.17 litre/m²).

Excluding allowances for loss wastage, surface profile and porosity. Allow approximately 10% extra for spray application.

SHELF LIFE AND STORAGE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +25°C).

Handling Precautions

Sika products are generally harmless provided that certain precautions normally taken when handling chemicals are observed. The materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils and measures should also be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The use of protective clothing, goggles, barrier creams and rubber gloves is required. The skin should be thoroughly cleaned at the end of each working period either by washing with soap and warm water or by using a resin-removing cream - the use of powerful solvents is to be avoided. Disposable paper towels - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. In case of accidental eye or mouth contact, flush with water - consult a doctor immediately. Health and Safety information on Sika Products is available and we strongly advise that this is read prior to their use. Sika products are for professional use and should be stored in sealed containers away from the reach of children.

Important Note

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

Please consult our Technical Sales Department for further information

SIKA LIMITED

Watchmead, Welwyn Garden City, Hertfordshire, AL7 1BQ

Tel: 01707 394444 Email: sika@uk.sika.com

Fax: 01707 329129 www.sika.com

