

# Sikagard® -675 W GB ElastoColor

Protective coating for exposed concrete

## Product Description

Sikagard®-675 W GB ElastoColor is a one part, plasto-elastic water dispersed coating based on styrene acrylate dispersion for the protection and enhancement of fair-faced concrete.

Sikagard®-675 W GB ElastoColor can be applied over existing coatings or directly onto the concrete surfaces.

Sikagard®-675 W GB ElastoColor complies with the requirements of EN 1504-2 as a protective coating.

## Uses

Sikagard®-675 W GB ElastoColor is used for protection and enhancement of concrete structures (normal and lightweight concrete).

- Suitable for protection against ingress (Principle 1, method 1.3 of EN 1504-9),
- Suitable for moisture control (Principle 2, method 2.3 of EN 1504-9)
- Suitable for increasing the resistivity (Principle 8, method 8.3 of EN 1504-9)

## Characteristics / Advantages

- Water vapour permeable
- Very good resistance against weathering and ageing
- Very good chalking resistance
- Easy application
- High covering power (good opacity)
- Environmentally friendly (solvent free)
- Prevents water ingress
- High diffusion resistance to CO<sub>2</sub> (carbon dioxide)
- Low odour

## Tests

### Approvals / Standards

Conforms to the requirements of EN 1504-2.

BS476 Part 6 : Class 1

BS476 Part 7 : Class 1

Complies with the requirements for Class 'O', surface as defined in paragraph A13(b) of Approved Document B (Volumes 1 and 2) (2006 Edition) 'Fire Safety' to the Building Regulations 2000.

Construction



## Product Data

### Form

**Appearance / Colours** Thixotropic liquid available in almost every colour shade.

**Packaging** 15 l metal pails

### Storage

**Storage Conditions / Shelf-Life** 12 months from date of production if stored properly in undamaged and unopened original sealed packaging in cool and dry conditions. Protect from direct sunlight and frost.

### Technical Data

**Chemical Base** Styrene acrylate dispersion

**Density** ~ 1.42 kg/l (at +20°C)

**Solid Volume** ~ 48%

**Solid Content** ~ 64%

**Layer Thickness** Minimum required dry thickness to achieve full durability characteristics (CO<sub>2</sub> diffusion, adhesion after thermal cycling, etc.) = 160 microns.

### Carbon Dioxide Diffusion Coefficient (μCO<sub>2</sub>)

Dry film thickness	d = 160 μm
Equivalent air layer thickness	S <sub>D</sub> , CO <sub>2</sub> = 235 m
Diffusion coefficient CO <sub>2</sub>	μCO <sub>2</sub> = 1.47 x 10 <sup>6</sup>
Requirements for protection	S <sub>D</sub> CO <sub>2</sub> ≥ 50 m

### Water Vapour Transmission Rate

Dry film thickness	d = 270 μm
Equivalent air layer thickness	S <sub>D</sub> , H <sub>2</sub> O = 0.59 m
Water Vapour Permeability	35.6 g/m <sup>2</sup> /day
Requirements for breathability	S <sub>D</sub> HO <sub>2</sub> ≤ 5 m

**Liquid Water Transmission Rate**  $w = 0,07 \text{ kg}/(\text{m}^2\text{h}^{0.5})$  EN 1062-3

**Adhesion Pull-Off** 2,7 N/mm<sup>2</sup> EN 1542

**Artificial Weathering** Pass after 2000 hours EN 1062-11

## System Information

### System Structure

**Normal absorbent concrete and/or well cured smoothing coatings**  
(Sika® MonoTop®-620, etc.):

System	Product	Number of applications
Priming	Sikagard®-675 W GB ElastoColor + 15% water diluted	1
Top coat*	Sikagard®-675 W GB ElastoColor	2

**Smooth non absorbent concrete:**

Priming	Sikagard®-551 S Elastic Primer	1
Top coat*	Sikagard®-675 W GB ElastoColor	2

**Absorbent fair faced concrete:**

Priming	Sikagard®-552 W Aquaprimer	1
Top coat*	Sikagard®-675 W GB ElastoColor	2

**Concrete exposed to de-icing salt splashes:**

Priming	Sikagard®-740 W Aquaphob (wet on wet) or other Sika hydrophobic impregnation	1- 2
Top coat*	Sikagard®-675 W GB ElastoColor	2

Note\*:

With intensive yellow or red colour shades and/or a dark substrate, more than two coats might be required.

### Application Details

#### Consumption

Product	Per coat
Sikagard®-551 S Elastic Primer	~ 0.10 - 0.15 kg/m <sup>2</sup>
Sikagard®-552 W Aquaprimer	~ 0.10 - 0.15 kg/m <sup>2</sup>
Sikagard®-740 W	~ 0.10 - 0.15 kg/m <sup>2</sup>
Sikagard®-675 W GB ElastoColor	~ 0.20 - 0.25 L/m <sup>2</sup>

#### Substrate Preparation

Exposed concrete without existing coating:

The surface must be dry, sound and free from loose and friable particles. Suitable preparation methods are steam cleaning, high pressure water jetting or blastcleaning.

New concrete must be at least 28 days old.

If required, a smoothing coating (e.g. Sika® MonoTop®-610 etc.) shall be applied. For cement based products, allow a curing time of at least 4 days before coating (When Sikagard® 720 EpoCem® is used, then coating can be applied within 24 hours).

Exposed concrete with existing coating:

Existing coatings must be tested to confirm their adhesion to the substrate and their suitability - adhesion test average > 0.8 N/mm<sup>2</sup> with no single value below 0.5 N/mm<sup>2</sup>. – refer to the relevant Method Statement for more details

For water based coating, use Sikagard-552 W Aquaprimer as primer.

For solvent based coating, use Sikagard-551 S Elastic Primer as primer.

In case of doubt, carry out adherence testing to determine which primer is most suitable – wait at least 2 weeks prior to conduct the adhesion test - an average value of 0.8 N/mm<sup>2</sup> is required with no single value below 0.5 N/mm<sup>2</sup>.

## Application Conditions / Limitations

<b>Substrate Temperature</b>	+8°C min. / +30°C max.
<b>Ambient Temperature</b>	+8°C min. / +30°C max.
<b>Relative Air Humidity</b>	< 75%
<b>Dew Point</b>	Temperature must be at least 3°C above dew point.
<b>Substrate Moisture Content</b>	20% (wood moisture equivalent)

## Application Instructions

**Mixing** The product is supplied ready for use and must be not thinned unless the 1<sup>st</sup> coat is used as a primer (refer to coating system structures). In these instances, add up to 15% of water and mix thoroughly. Un-thinned material must be stirred up thoroughly with electric drill & spiral mixer prior to application.

**Application Method / Tools** Sikagard®-675 W GB ElastoColor can be applied by brush, roller or airless spray.

Brush application: Always use a soft, wide nylon or bristle brush. Do not use sweeping brushes.

Roller application: Use a heavy nap 2 to 2.5 cm (3/4" or 1") synthetic cover.

Airless spray application on smooth substrates only:  
Pressure: ~ 150 bar  
Tip size: 0.43 - 0.58 mm

**Cleaning of Tools** Clean all tools and application equipment with water immediately after use. Hardened / cured material can be removed with cellulose thinners, xylene or toluene.

For Sikagard®-551 S Elastic Primer use Sika® Thinner C.

## Waiting Time / Overcoating

Waiting time between coats at +20°C substrate temperature:

Previous coating	Waiting time	Next coating
Sikagard®-552 W Aquaprimer	12 hours min.	Sikagard®-675 W GB ElastoColor
Sikagard®-551 S Elastic Primer	18 hours min.	Sikagard®-675 W GB ElastoColor
Sikagard®-740W	8 hours min.	Sikagard®-675 W GB ElastoColor
Sikagard®-675 W GB ElastoColor	1 hour min.	Sikagard®-675 W GB ElastoColor

Note: A refresher coat of Sikagard®-675 W GB ElastoColor can be applied without priming if the existing coat has been thoroughly cleaned.

## Notes on Application / Limitations

Do not apply when there is:

- Expected rain
- Relative humidity > 75%
- Temperature below +8°C and/or below dew point
- Concrete younger than 28 days

The system is resistant to aggressive atmospheric influences.

Dark colour shades (especially black, dark red and blue, etc.) may fade more rapidly than other lighter tone colours. Refreshing coat might be required at earlier interval than usual.

Ensure entire surface is fully dried before proceeding. Cracking may occur overcoating semi-cured surfaces or when applying excessively thick material.

The gloss of the applied material is influenced by humidity, temperature and absorbency of the substrate.

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking on the coating surface.

Protect from rain for at least 3 hours at +20°C.

<b>Value Base</b>	All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.
<b>Local Restrictions</b>	Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.
<b>Health and Safety Information</b>	For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.
<b>Legal Notes</b>	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 accordance with Sika's recommendations. 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 user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.


**EU Regulation 2004/42**

Water based, low odour and VOC content complies with the EU-Directive 2004/42/CE. The maximum allowed content of VOC (Product category IIA / c type **wb**) is 40 (Limit 2010) for the ready to use product.

**CE Labelling**

The harmonised European standard EN 1504-2 “Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2 Surface protection system for concrete” specifies the requirements for coatings to be used to protect concrete structures (either building or civil engineering structures).

Coatings used as concrete protection fall under this specifications – they need to be CE-labelled as per Annex Za, table Za.1d & 1e, conformity 2+ and 3 and fulfil the requirements of the given mandate of the Construction Product Directives (89/106/EC).

 <b>0836</b>	
<b>Sika Limited</b> <b>Watchmead</b> <b>Welwyn Garden City</b> <b>Hertfordshire</b> <b>AL7 1BQ</b>	
<b>0836-CPD-09/F015</b> <b>EN 1504-2</b> <b>Surface protection products</b> <b>Protective coating</b>	
<b>Permeability to CO<sub>2</sub></b>	<b>S<sub>D</sub> ≥ 50 m</b>
<b>Permeability to water vapour</b>	<b>S<sub>D</sub> ≤ 5 m (class I)</b>
<b>Capillary absorption and permeability to water</b>	<b>ω &lt; 0,1 kg/m<sup>2</sup>.h<sup>0,5</sup></b>
<b>Adhesion Strength by pull-off test</b>	<b>≥ 0,8 (0,5) N/mm<sup>2</sup></b>
<b>Reaction to fire after application</b>	<b>Class E</b>
<b>Dangerous substances comply with 5.3</b>	



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