

Product Data Sheet

Edition 30/01/2009

Identification no:

01 03 03 03 001 0 000003

Sikagard® -675 W ElastoColor

**EN 1504-2****09****0921- BPR - 2046****Sikagard® -675 W ElastoColor**

Protective coating for exposed concrete

Construction

Product Description

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

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

Uses

Sikagard®-675 W ElastoColor is used for protection and enhancement of concrete structures (normal and lightweight concrete), especially exposed concrete surfaces with a risk of cracking

Sikagard®-675 W ElastoColor is used with concrete repair works as an elastic protective coating on Sika® smoothing mortar (refer to your product / system data sheet), fibre cement and overcoating of existing soundly adhering coatings

- Suitable for protection against ingress (Principle 1, method 1.3 of EN 1504-9),
- Suitable for moisture control (Principle 2, method 2.2 of EN 1504-9)
- Suitable for increasing the resistivity (Principle 8, method 8.2 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 CO₂ (carbon dioxide)

Tests**Approvals / Standards**

Conforms to the requirements of EN 1504-2.

LPM report A-21'699-4 dated 17th.03/2000

Tested to OS-C system of ZTV-SIC 90 – Polymer Institute report P 3169-2 dated 15th. 07.2003

Product Data**Form****Appearance / Colours**

Thixotropic liquid available in almost every colour shade.

Packaging

15 l 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 ~ 1.30 kg/l (at +20 °C)

Solid Volume ~ 43%

Solid Content ~ 57%

Layer Thickness

Minimum required dry thickness to achieve full durability characteristics (CO₂ diffusion, adhesion after thermal cycling, etc.) = 130 microns.

Maximum required thickness not to go beyond the H₂O equivalent air thickness of 4 m = 1300 microns

Carbon Dioxide Diffusion Coefficient (μCO₂)

Dry film thickness	d = 149 μm
Equivalent air layer thickness	S _{D, CO₂} = 138 m
Diffusion coefficient CO ₂	μCO ₂ = 9.3 x 10 ⁵
Requirements for protection	≥ 50 m

Water Vapour Diffusion Coefficient (μH₂O)

Dry film thickness	d = 167 μm
Equivalent air layer thickness	S _{D, H₂O} = 0.52 m
Diffusion coefficient H ₂ O	μH ₂ O = 3200
Requirements for breathability	≤ 4 m

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 ElastoColor + 15% water diluted	1
Top coat*	Sikagard®-675 W ElastoColor	2

Smooth non absorbent concrete:

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

Absorbent fair faced concrete:

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

Splash zones, concrete exposed to de-icing salt splashes:

Priming	Sikagard®-702 W Aquaphob (wet on wet) or other Sika hydrophobic impregnation	1- 2
Top coat*	Sikagard®-675 W 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 ²
Sikagard®-552 W Aquaprimer	~ 0.10 - 0.15 kg/m ²
Sikagard®-702 W Aquaphob	~ 0.15 - 0.20 kg/m ²
Sikagard®-675 W ElastoColor	~ 0.20 - 0.25 kg/m ²

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, Sikagard®-545 W Elastofill, etc.) shall be applied.

For cement based products, allow a curing time of at least 4 days before coating.

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/mm² with no single value below 0.5 N/mm². – 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/mm² is required with no single value below 0.5 N/mm².

Application Conditions / Limitations

Substrate Temperature +8°C min. / +30°C max.

Ambient Temperature +8°C min. / +30°C max.

Relative Air Humidity < 75%

Dew Point Temperature must be at least 3°C above dew point.

Application Instructions

Mixing The product is supplied ready for use and must be not thinned unless the 1st 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 prior to application.

Application Method / Tools Sikagard®-675 W ElastoColor can be applied by brush, roller or airless spray.
For airless spray application:
Pressure: ~ 150 bar
Nozzle bore: 0.38 - 0.53 mm
Spray angle: ~ 50 - 80°

Cleaning of Tools Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be mechanically removed.

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 ElastoColor
	Sikagard®-551 S Elastic Primer	18 hours min.	Sikagard®-675 W ElastoColor
	Sikagard®-702 W Aquaphob	5 hours min.	Sikagard®-675 W ElastoColor
	Sikagard®-675 W ElastoColor	1 hour min.	Sikagard®-675 W ElastoColor
	Note: A refresher coat of Sikagard®-675 W ElastoColor can be applied without priming if the existing coat has been thoroughly cleaned.		
Notes on Application / Limitations	<p>Do not apply when there is:</p> <ul style="list-style-type: none"> - Expected rain - Relative humidity > 75% - Temperature below +8 °C and/or below dew point - Concrete younger than 28 days <p>The system is resistant to aggressive atmospheric influences.</p>		
Curing Details			
Curing Treatment	Sikagard®-675 W ElastoColor does not require any special curing but must be protected from rain for at least 2 hours at +20°C.		
Applied Product ready for use	Final drying: ~ 14 hours at +20°C		
Value Base	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.		
Local Restrictions	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.		
Health and Safety Information	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.		
Legal Notes	<p>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.</p>		

EU Regulation 2004/42

VOC - Decopaint Directive


According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / c type **wb**) is 75/40 (Limit 2007 / 2010) for the ready to use product.

The maximum content of **Sikagard®-675 W ElastoColor** is < 40 g/l VOC 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).

	
0921	
Sika Services AG Factory Number 1125 Tüffenwies, Zürich, Switzerland 09	
0921-BPR-2046 EN 1504-2 Surface protection products Protective coating	
Permeability to CO ₂	S _D > 50 m
Permeability to water vapour	S _D < 5 m (class I)
Capillary absorption and permeability to water	ω < 0,1 kg/m ² .h ^{0,5}
Adhesion Strength by pull-off test	≥ 0,8 (0,5) N/mm ²
Reaction to fire after application	Class E
Dangerous substances comply with 5.3	



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