BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-675 W ElastoColor

PROTECTIVE COATING FOR CONCRETE

DESCRIPTION

Sikagard®-675 W ElastoColor is a one-component, 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 protective coating.

USES

Sikagard®-675 W ElastoColor is used for protection and enhancement of concrete structures (normal and lightweight concrete).
Sikagard®-675 W ElastoColor is used with concrete repair works as an elastic protective coating on Sika® levelling mortar (refer to relevant 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 2.3 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_2 (carbon dioxide)

APPROVALS / STANDARDS

- LPM report A-33’884-2 dated 21st July 2009
- Tested to OS-C system of ZTV-SIC 90 – Polymer Institute report P 3169-2 dated 15th. 07.2003
- Reaction to fire report – MPA Desden, Germany No. 06-6-2069/02 dated 1st August 2006
- Protective coating according to EN 1504-2, DoP 02 03 03 03 001 0 000003 1125; certified by Factory Production Control Body: 0921; certificate 0921-BPR-2046 and provided with the CE-mark

PRODUCT INFORMATION

Chemical base	Styrene acrylate dispersion
Packaging	15 L pails
Appearance / Colour	Thixotropic liquid available in almost every colour shade.
Shelf life	12 months from date of production if stored properly in undamaged and unopened original sealed packaging.
Storage conditions	Store in cool and dry conditions. Protect from direct sunlight and frost.
Density	~1.30 kg/L (at +20 °C)

Solid content by weight	~57 %
Solid content by volume	~43 %

TECHNICAL INFORMATION

Tensile Adhesion Strength	3,1 (2,9) N/mm²		(EN 1542)
Crack Bridging Ability	Class A1 (+23 °C)		(EN 1062-7)
Freeze Thaw De-Icing Salt Resistance	3.0 (2.4) N/mm²		(EN 13687-part 1 & part 2)
Behaviour after Artificial Weathering	Pass after 2000 hours		
Diffusion Resistance to Water Vapour	Dry film thickness	d = 170 µm	(EN ISO 7783-1 & -2)
	Equivalent air layer thickness	S_D, H_2O = 0.15 m	
	Diffusion coefficient H_2O	µH_2O = 800	
	Requirements for breathability	S_D, H_2O ≤ 5 m	
Capillary Absorption	w = 0.03 kg/(m²$h^{0.5}$)		(EN 1062-3)
Permeability to Carbon Dioxide	Dry film thickness	d = 180 µm	(EN 1062-6)
	Equivalent air thickness	S_D, CO_2 = 66 m	
	Diffusion coefficient CO_2	µCO_2 = 3,7 x 10^5	
	Requirements for protection	S_D, CO_2 ≥ 50 m	

SYSTEM INFORMATION

System Structure

System	Product	Number of application
Priming	Sikagard®-675 W ElastoColor diluted with ~15% H_2O	1

Smooth non-absorbent concrete:

System	Product	Number of application
Priming	Sikagard®-551 S Elastic Primer	1

Absorbent fair faced concrete:

System	Product	Number of application
Priming	Sikagard®-552 W AquaPrimer	1

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

System	Product	Number of application
Priming	Sikagard®-705 L or other Sika hydrophobic impregnation (Penetration depth class II - EN 1504-2)	1–2

For all substrates:

System	Product	Number of application
Top coat*	Sikagard®-675 W ElastoColor	2

Note*:
With intensive yellow or red colour and/or a dart substrate, more than two coats may be required.

APPLICATION INFORMATION

Consumption

Product	Per coat
Sikagard®-551 S Elastic Primer	~ 0.10 - 0.15 kg/m²
Sikagard®-552 W Aquaprimer	~ 0.10 - 0.15 kg/m²
Sikagard®-705 L	~ 0.15 kg/m²
Sikagard®-675 W ElastoColor	~ 0.20 - 0.25 kg/m²

Layer Thickness

Minimum required dry thickness to achieve full durability characteristics (CO2 diffusion, adhesion after thermal cycling, etc.) ≈ 180 microns.

Ambient Air Temperature

+8 °C min. / +35 °C max.

Relative Air Humidity

<80 %

Dew Point

Substrate and ambient temperature must be at least 3 °C above dew point.

Substrate Temperature

+8 °C min. / +35 °C max.

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®-705 L	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.

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

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

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 levelling pore sealer (e.g. SikaTop®-121, Sikagard®-720 EpoCem® HC, Sikagard®-545 W Elastofill, etc.) shall be applied.
For cement based products, allow a curing time of at least 4 days before coating (except when the 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/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

Sikagard®-675 W ElastoColor 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.

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

LIMITATIONS

Do not apply when there is:
- Expected rain
- Relative humidity > 80%
- 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.

BASIS OF PRODUCT DATA

All technical data stated in this 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 declared data and recommended uses for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / c type wb) is 40 (Limit 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.

LEGAL NOTES

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.

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