

Product Data Sheet
Edition 25/05/2016
Identification no:
020915101000000052
Sika® CoolCoat

Sika® CoolCoat

Single component, acrylic based flexible, waterproofing, micro fibre reinforced, heat reflecting cum temperature reducing coating system

Product Description

Sika® CoolCoat is a flexible, liquid applied, single component, ultra violet rays and weather resistant, acrylic waterproofing membrane for all types of exposed roof slabs(new and old),terraces(sloped and flat),etc..

Sika® CoolCoat contains Cross-linking polymers, Special Glass Micro fibers, pigments and advanced antifungal additive that provides long lasting tough water proofing membrane.

The low thermal conductivity of the membrane serves as insulation medium to resist heat transfer.

The long lasting glossy white colors reflect solar radiation that helps heat to back into the atmosphere which keeps the interior of a building cooler.

This coating combines the benefits of waterproofing as well as heat reduction in a single product. Thus ensuring value for money for customers.

The waterproofing system can be further reinforced using Sika® Fab 1 glass fibre mesh.

Uses

Suitable for all types of :

- Roof slabs(flat and sloped)
- RCC/ asbestos/ lime terraced roofs, etc. after suitable surface preparation and repairs
- Sunshades
- Suitable for repairing existing bituminous membrane
- Can be used as exterior coating for PVC water tanks exposed to direct sunlight on roofs. to keep the inside water temperature relatively cooler,
- Extended walls, balconies,

Characteristics / Advantages

- Cross linking polymer gives excellent weather resistance and enhances service life.
- High solar reflectance index (SRI) indicates high degree of cooling effect
- Crack-bridging
- High resistance to chloride penetration, hence highly suitable for saline environment.
- Algae and fungi resistant
- Highly Flexible
- Water vapour permeable
- Simple and fast application (even at detailing)
- Excellent adhesion to concrete, brickwork, corrugated asbestos, asbestos cement sheet and metal decks
- Ultra violet rays and weather resistant
- Water based hence eco friendly



Tests

Approval / Standards	Conforms to: IS101, IS 2645, EN 1542, ASTM D 5589, ASTM D 5590, ASTM C - 1202-08, ASTM D 4587, ASTM C 836, ASTM E1980, EN-673, EN-410,
-----------------------------	--

Product Data

Form

Appearance /Colours	Sika® CoolCoat : White and Grey Shade (Can be stained with good quality stainer for light shades). Pre-test for over paintability and paint compatibility are recommended.
----------------------------	---

Packaging	Sika® CoolCoat :10 kg x 1, 5kgx 2, 2kgx 2 Sika®-CoolCoat primer : 2kgx 2, 1 kg x 2 Sika® Fab 1 : Roll size of 10mx 1m (to be bought separately to reinforce the coating system) For further details please consult the most current data sheet of Sika® CoolCoat Primer
------------------	---

Storage

Storage Conditions/ Shelf-Life	Best before 12 months if stored properly in undamaged and unopened original sealed packaging in dry and cool conditions.
---------------------------------------	--

Technical Data

Chemical Base	Acrylic polymer dispersion
Density	Sika® CoolCoat:~1.35 kg/l at 27° C
Film Thickness	340 - 360 microns (DFT)per coat, minimum three coats recommended for optimum performance)
Layer Thickness	With Sika® Fab-1 ~1.2 mm
Solid Content	~ 66 % (by weight)
VOC	< 10 gm/l Complies to Green building standards

Mechanical / Physical Properties

Adhesion Strength on cement after 14 days curing	≥ 1.5 N/mm ² (According to EN 1542)
Tensile Strength	1.5 MPa (According to ASTM D 412)
Crack bridging properties	3.2mm (According to ASTM C -836)
Water Absorption (% by Mass)	< 10 % (According to ASTM D570)
Water Vapour Transmission	23 g/m ² / 24h (According to ASTM E 96)
Resistance to Alkali (10% NaoH after 24hrs)	Satisfactory. No sign of cracking, flaking, blistering or any other failure was observed (According to IS101- Part7:Sec2)

Crack resistance	Pass 1/8 inch mandrel	(According to IS101- Part5:Sec2)
Solar direct reflectance	79 %	(According to ASTM E1980, EN-673, EN-410)
Emissivity	0.904	
Solar reflectance index	102 (low wind to high wind condition)	
	49.8 to 41°C(low wind to high wind condition)	
Elongation at Break (%)	200%	(According to ASTM D 412)
Algae & Fungal Growth	No growth	(According to ASTM D -5590)
Rapid chloride penetration	Very low	(According to ASTM C -1202-08)
Workable time	20- 30 minutes at +27° C (lesser workable time at higher temperatures)	
Over coating time	Sika® CoolCoat Primer: 2-4 hours at +27° C (depending on humidity and ventilation) Sika® CoolCoat Coating: 6 – 8 hrs at +27° C (depending on humidity and ventilation)	
Water permeability	Passes	(According to IS 2645)
Accelerated weathering, 500 hours	No cracking , no blister& 100% gloss retention (According ASTM D 4587)	
Shore A Hardness	45 after 1 month	

System Information

System Structure *Without Sika® Fab 1 for Roof*

Layer thickness:	1 mm
Primer:	1 x Sika® CoolCoat Primer
First Coat:	1 x Sika® CoolCoat
Second Coat:	1x Sika® CoolCoat
Top coat:	1 x Sika® CoolCoat Primer

System	Type of material	Consumption
Primer Consumption	Sika® CoolCoat Primer	~ 0.2 – 0.3 kg/m ² **
First Coat	Sika® CoolCoat	0.75 kg/m ²
Second Coat	Sika® CoolCoat	0.75 kg/m ²
Top Coat	Sika® CoolCoat Primer	~ 0.05 – 0.08 kg/m ² **

With Sika® Fab 1 for Roof

Layer thickness:	1.2 mm
Primer:	1 x Sika® CoolCoat Primer
First Coat:	1 x Sika® CoolCoat
Fabric reinforcement :	1 x Sika® Fab 1
Second Coat:	1x Sika® CoolCoat
Top coat:	1 x Sika® CoolCoat Primer

System	Type of material	Consumption
Primer Consumption	Sika® CoolCoat Primer	~ 0.2 -0.3 kg/m ² **
First Coat	Sika® CoolCoat	0.75 kg/m ²
Fabric reinforcement	x Sika® Fab 1	Single layer
Second Coat	Sika® CoolCoat	0.75 kg/m ²
Top Coat	Sika® CoolCoat Primer	~ 0.05 – 0.08 kg/m ² **

** Actual consumption depends on substrate quality

Without Sika® Fab 1 for Wall

Primer: 1 x Sika® CoolCoat Primer
 First Coat: 1 x Sika® CoolCoat
 Second Coat: 1x Sika® CoolCoat
 Top coat: 1 x Sika® CoolCoat Primer

System	Type of material	Consumption
Primer Consumption	Sika® CoolCoat Primer	~ 0.2 – 0.3 kg/m ² **
First Coat	Sika® CoolCoat	0.3 – 0.4 kg/m ²
Second Coat	Sika® CoolCoat	0.3 – 0.4 kg/m ²
Top Coat	Sika® CoolCoat Primer	~ 0.05 – 0.08 kg/m ² **

** Actual consumption depends on substrate quality

Application Details

Consumption / Dosage Sika®CoolCoat Primer : 0.25- 0.38 kg/m² consumption depending on the substrate
 Sika® CoolCoat: 0. 75 kg /m² per coat (2 coats recommended) for Roof
 Sika® CoolCoat: 0.3 – 0.4 kg /m² per coat (2 coats recommended) for Wall
 Total thickness – 1.2 mm approx with Sika® Fab1 and 1mm without Sika® Fab1

Substrate Quality The cementitious substrate should be sound and of sufficient strength. All substrate should be clean and dry, homogeneous, free from oil and grease, dust and loose or friable particles, free from paint, cement laitance, old coatings and any other contaminants. All new cement sand renderings, concrete surfaces should be allowed to age for minimum of 28 days before coating.

Substrate Preparation All dust, loose and friable materials and glaze or varnish of tiles must be completely removed by mechanical means. Existing coatings/ membranes have to be inspected, cleaned and mechanically ground to achieve a sound, gripping substrate. In case of bad adhesion to the substrate, existing coatings have to be removed.
 All uneven surfaces should be properly treated by suitable Sika® material to get a plain surface.
 In case of application on an existing bituminous membrane following procedure has to be followed :
 After ensuring that the existing membrane has been cleaned properly, apply the C.S. Primer/ Solvent based or Water based on the surface on which the system is to be applied. Sprinkle a layer of sand on the primed surface immediately and allow it to dry for atleast 12 hours. The surface is now ready to take the Sika Cool Coat System.

Application Conditions/ Limitations

Substrate Temperature +10°C min / +45°C max

Ambient Temperature +10°C min / +45°C max

Application Instructions

Priming Prime the prepared substrate with Sika® CoolCoat Primer by brush or roller.

Application Method / Tools Sika® Cool Coat is supplied in a single component pack and is in ready to use form. Stir thoroughly using a conventional paint stirrer prior to application.
 Within 2-4 hours of priming, apply 1st coat of Sika® CoolCoat by brush or roller. Do not spoil the dry surface while walking on it for application.
 Place Sika® Fab1 over the first coat when it is in tacky condition
 Apply the 2nd coat of Sika® CoolCoat following the same above procedure at suitable time interval of 6-8 hours between the coats.

Finally apply a thin layer of Sika® CoolCoat Primer. Suitable time interval is 6-8 hours after the second coat dries off.

The above mentioned times may vary depending on temperature, humidity and ventilation at site.

Important Recommendation

The product can be stained with good quality stainer for light shades. However, pre-test for consistency of colour shade is recommended through site trials before application.

Cleaning of Tools

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

Waiting Time / Over coating

Waiting time between coats

+30°C	6-8 hours
-------	-----------

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.

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

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.



Sika India Pvt. Ltd.
Commercial Complex II
620, Diamond Harbour Road
Kolkata, 700 034, India

Phone +91 33 2447 2448/2449
Telefax +91 33 2396 8688
ind.sika.com
info.india@in.sika.com