Only to be applied by a Sika Approved Contractor

Construction

Sikagard®-62 (AU)

2-Part Epoxy Protective coating

Positioning

Description

Sikagard®-62 is a 2-pack solvent free high build thixotropic, protective coating material based on epoxy resin.

When cured Sikagard®-62 provides a hard, glossy film with high resistance to abrasion and chemical attack.

*German association of construction chemicals

Uses

- Abrasion-resistant universal coating material designed for normal to moderately aggressive chemical environments.
- Sikagard®-62 is suitable for use on concrete, stone, cementitious mortars and renderings, epoxy cements (EpoCem), epoxy mortars and steel.
- For linings to storage tanks and silos, bund areas, wastewater tanks, geothermal cooling tower basins, reservoirs.
- Anti-corrosion coating in food-processing plants, sewage works, farms and agricultural enterprises, chemical and pharmaceutical plants, beverage industries and bottling plants.
- Also used as part of glass fibre-reinforcement linings with crack-bridging properties on bund areas and storage tanks.
- Can be used in potable water facilities.

Advantages

- Solvent-free
- Good chemical and mechanical resistance
- Easy to mix and work
- High-build
- Impervious to liquids
- Approved for use with potable water

Product Data

Appearance / Colours

Resin - Part A:	Coloured, liquid
Hardener - Part B:	Transparent, liquid

Pebble grey (RAL 7032). Limited range of RAL colours on request

Under direct sun radiation there may be some discolouration and colour deviation, this has no influence on the function and performance of the coating.

Packaging

Part A:	9.00kg containers (including colour pack)
Part B:	3.00kg containers
Part A+B:	12.00kg ready to mix units

Storage Conditions/ Shelf-Life

36 months from date of production if stored properly in undamaged sealed containers in dry conditions at temperatures between +5°C and +30°C.

Technical Data

Chemical Base

Epoxy resin

Density

Part A:	~ 1.45kg/litre
Part B:	~ 1.02kg/litre
Mixed resin:	~ 1.37kg/litre

All density values at +23°C

Solid Content

~ 100% (by volume), ~ 100% (by weight)

Mechanical / Physical Properties

Bond Strength	> 1.5N/mm² (failure in concrete)	ISO 4624
Suitability for use in drinking water	Complies with all requirements of AS 4020: 2005 (Int) – 1994 at a maximum allowable surface area to volume ratio of 3365 mm² /litre of water.	
Chemical Resistance	(3 coats on sheet steel - 500 microns approximately).	
Mechanical Strength at 7 days:		
Tensile Strength	25MPa approx.	
Elongation at break	10% approx.	
Compressive Strength	50MPa approx.	
Flexural tensile Strength	50MPa approx.	
E-Modulus (dynamic)	30-40.10² MPa approx.	
Adhesive Strength (DIN 53232):		
To dry concrete approx.	3.5MPa *	
To sandblasted steel approx.	25MPa	
To aluminium approx.	16MPa	

***failure in concrete**

Test Medium	Test Temp °C	Exposure Period and Performance Rating					
		1 day	7 days	30 days	2 mths	6 mths	12 mths
Acetic acid 20%	20	A	A	A	A	AD	C
	40	A	A	A	AD	C	-
Ethyl Acetate	20	A	B	C	-	-	-
Acetone	20	A	C	-	-	-	-
Ammonia 10%	20	A	A	A	A	A	A
Ammonia 10%	40	A	A	A	A	A	AD
Caustic Soda 30%	20	A	A	A	A	A	A
Cement water	20	A	A	A	A	A	AD
	40	A	A	A	A	A	BD
Citric Acid 20%	20	A	A	A	A	AD	AD
	40	A	A	AD	AD	AD	AD
Detergents (eg. liquid	20	A	A	A	A	A	A
"Ajax")	40	A	A	A	A	AD	AD
Distilled water	20	A	A	A	A	A	A
	40	A	A	A	A	A	AD
	60	A	A	A	BD	BD	BD
Ethanol	20	A	A	A	B	C	-
	40	A	B	C	-	-	-
Ethanol/Water 60:40	20	A	A	A	A	A	A
Formic acid 10%	20	A	A	A	A	A	B
Fuel oil (EMPA)	20	A	A	A	A	A	A
	40	A	A	A	A	A	A
	60	A	A	A	A	A	A
Hydraulic fluids	20	A	A	A	A	A	A
(eg. "Arcosafe", "Skydrol")	40	A	A	A	A	B	C

Hydrochloric acid, 10%	20	A	A	A	A	A	A
Hydrochloric acid,	20	A	AD	AD	AD	AD	AD
concentrated	40	AD	AD	AD	BD	C	-
Hydrogen peroxide 5%	20	A	A	A	A	B	B
Iron (III) chloride sol. 35%	20	A	A	AD	AD	AD	AD
	40	A	A	AD	AD	AD	AD
Iron (II) sulphate sol. 35%	20	A	AD	AD	AD	AD	AD
	40	A	AD	AD	AD	AD	AD
Sodium Hypochlorite 14% Cl	20	A	A	AD	BD	BD	C
Kerosene	20	A	A	A	A	A	A
	40	A	A	A	A	A	A
Lactic acid 20%	20	A	A	A	AD	BD	C
	40	A	A	AD	C	-	-

Chemical resistance

(3 coats on sheet steel - 500 microns approximately).

Test Medium	Test Temp °C	Exposure Period and Performance Rating					
		1 day	7 days	30 days	2 mths	6 mths	12 mths
Liquid manure	20	A	A	A	A	A	AD
	40	A	A	A	AD	AD	AD
Liquid silage	20	A	A	A	AD	AD	AD
	40	A	A	AD	BD	BD	BD
Methyl ethyl ketone MEK	20	A	C	-	-	-	-
Nitric acid 20%	20	AD	AD	AD	C	-	-
	40	AD	AD	C	-	-	-
Oxalic acid 10%	20	A	A	AD	AD	BD	C
	40	A	AD	AD	C	-	-
Phosphoric acid 40%	20	A	AD	AD	BD	BD	C
	40	AD	AD	BD	C	-	-
Potassium permanganate 10%	20	A	A	B	C	-	-
Red wine	20	A	A	A	A	A	A
Sodium Carbonate Solution	20	A	A	A	A	A	A
(saturated)	40	A	A	A	A	A	A
Sodium Chloride solution	20	A	A	A	A	A	A
(saturated)	40	A	A	A	A	A	A
Sodium sulphite solution	20	A	A	A	A	A	A
(saturated)	40	A	A	A	A	A	A
Styrene	20	A	A	A	A	A	B
Sulphuric acid 50%	20	AD	AD	AD	AD	AD	AD
	40	AD	AD	AD	AD	AD	AD
Sulphurous acid 5%	20	A	A	AD	AD	AD	BD
	40	A	AD	AD	AD	AD	BD
Tartaric acid 20%	20	A	A	A	A	A	A
Toluene	20	A	A	B	B	B	B
	40	A	A	B	B	B	C

Trichloroethylene	20	A	B	C	-	-	-
Water	20	A	A	A	A	A	A
	40	A	A	A	A	A	A
	60	A	A	A	B	B	B
White wine	20	A	A	A	A	A	A

For information about resistance to other media, please consult our Technical Department.

A = resistant to prolonged contact
B = temporarily resistant
C = breakdown of coating
D = discolouration of coating

Thermal Resistance

Exposure*	Dry heat
Permanent	+50°C
Short-term max. 7 d	+80°C
Short-term max. 12 h	+100°C

Short-term humid heat* up to +80°C where exposure is only occasional (steam cleaning etc.).

*No simultaneous chemical load.

System Information

System Structure

Roller coating:
Primer: 1 x Sikagard®-62 or
1 x Sikafloor® -156
Coating: 2 - 3 x Sikagard®-62

Glass fabric reinforced system:
Primer: 1 x Sikagard®-62 or
1 x Sikafloor® -156
Coating: 1 x Sikagard®-62 embedding of glass fabric
2 - 3 x Sikagard®-62

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Roller coating		
Priming	Sikagard®-62 or Sikafloor® -156	0.3 - 0.5kg/m²
Roller coating 2 coats minimum *	Sikagard®-62	0.3 - 0.5kg/m² per coat, depending on substrate condition and coating thickness required

Glass fabric reinforced system

Priming	Sikagard®-62 or Sikafloor®-156	0.3 - 0.5kg/m²
1st coat	Sikagard®-62	0.3 - 0.5kg/m²
Imbedding	Glass fabric	Approx. 0.3kg/m²
2nd coat	Sikagard®-62	03 - 0.5kg/m²
3rd coat	Sikagard®-62	0.3 - 0.5kg/m²

For a theoretical dry film thickness of 100 microns (0.1mm) approx. 0.14kg/m². These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level or wastage etc.

*** Note:** 3 coats of Sikagard®-62 are recommended for high chemical and mechanical resistance.

Substrate Quality

The concrete substrate must be sound and of sufficient compressive strength (minimum 25N/mm^2) with a minimum pull off strength of 1.5N/mm^2.

The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

If in doubt apply a test area first.

Substrate Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.

Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.

The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.

High spots must be removed e.g. by grinding.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Steel surfaces must be prepared by blast cleaning to Sa 2 ½ (ISO 8501-1) or SSPC-SP 10. All weld splatter has to be removed totally, joints and welds must be ground in accordance with EN 14879-1. An average surface profile $R_z \geq 50\mu m$ must be achieved, the substrate has to be free from contaminants detrimental to adhesion, preferably by high pressure water jetting prior of blast cleaning.

Application Conditions / Limitations

Substrate Temperature

+8°C min, +30 °C max

Ambient Temperature

+8C min, +30 °C max

Substrate Moisture Content

≤ 4% moisture content. Test method: Sika®-Tramex or CM.

No rising moisture according to ASTM (Polyethylene-sheet).

Relative Air Humidity

80% r.h. max

Dew Point

Beware of condensation!

The substrate and uncured floor must be at least 3ºC above the dew point to reduce the risk of condensation or blooming on the wall and floor finish.

Note: Low temperatures and high humidity conditions increase the probability of blooming.

Application Instructions

Mixing Ratio / Dosage

Part A : Part B = 75 : 25 (by weight)

Mixing Time

Prior to mixing stir Part A mechanically. When all of Part B has been added to Part A continuously mix for 3 minutes until a uniform mix has been achieved.

To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix.

Over mixing must be avoided to reduce air entrainment.

Mixing Tools

Sikagard®-62 must be mechanically mixed using an electric power stirrer (300 - 400 rpm) or other suitable equipment.

Application Method / Tools

Prior to application, confirm substrate moisture content, relative humidity and dew point.

Coating:
Sikagard®-62 , can be applied with a distemper brush, a short-piled, solvent resistant, non-fuzzy roller or by airless spray equipment

Cleaning of Tools

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

Potlife

Max. open times

Temperatures	Time
+10°C	~ 30 min
+20°C	~ 20 min
+30°C	~ 10 min

Waiting Time / Overcoatability

Before applying Sikagard®-62 on Sikagard®-62 allow:

Substrate Temperature	minimum	maximum
+10°C	30 hours	3 days
+20°C	10 hours	2 days
+30°C	6 hours	1 days

Times are approximate and will be affected by changing ambient conditions.

Notes on Application / Limitations

Do not apply Sikagard®-62 on substrates in which significant vapour pressure may occur.

Do not dilute the product as this will affect in-service performance. Thinners or solvents must not be used.

Do not mix and apply product that has a temperature of greater than 30°C. If applying at higher than 30°C, as soon as the Sikagard®-62 is mixed transfer the container into an esky containing ice to just below the rim of the container, and then apply the Sikagard®-62 from the open container in the esky.

Do not apply Sikagard®-62 to cementitious mortars that are modified with acrylic. acrylic co-polymer, EVA or PVA polymers (e.g. SikaTops or Sika MonoTops) because under certain environment conditions hardened mortar or render may swell slightly and crack the rigid epoxy coating.

If > 4% moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.

Sag resistance: < 300 µm (wet film thickness)

Freshly applied Sikagard®-62 must be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on surface.

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

For exact colour matching, ensure Sikagard®-62 is applied from the same control batch numbers.

With relative air humidity of ≥ 80% the use of heating and dehumidification equipment is essential.

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO_2 and H_2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

Curing Details

Applied Product ready for use

Temperature	Foot Traffic	Light Traffic	Full cure
+ 10°C	~ 2 days	~ 5 days	~ 14 days
+ 20°C	~ 1 days	~ 4 days	~ 10 days
+ 30°C	~ 18 hours	~ 2 days	~ 5 days

Times are approximate and will be affected by changing ambient conditions.

Cleaning / Maintenance

Refer to Sika “Cleaning and Maintenance Recommendations for Sika Flooring Installations”.

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.

Safety Instructions

Protective Measures

- Wear protective gloves and eye protection during work
- A full Material Safety Data Sheet is available from Sika on request

Important Notes

- Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.
- Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

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.

Responsible Care

Certified Quality System ISO 9001/EN 29001 since 1986

Sika (NZ) Limited
PO Box 19192, Auckland 1746, NZ.
0800 745 269 | www.sika.co.nz

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