

StrataShield Sealer Coat

Aliphatic single-component polyurethane resin

Product overview

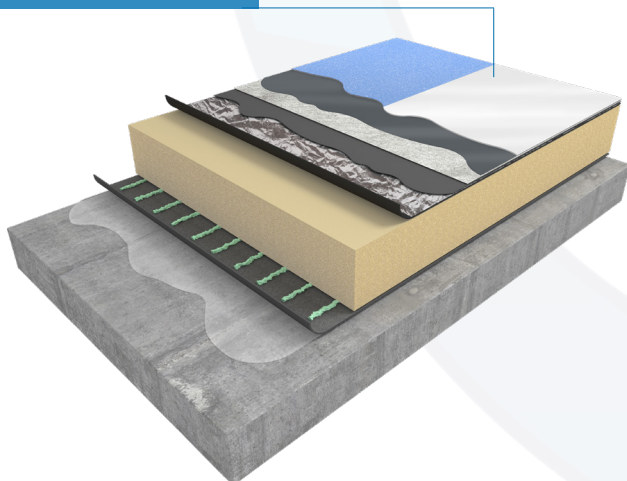
StrataShield Sealer Coat is a hard-wearing aliphatic isocyanate-based polyurethane resin that cures upon reaction with atmospheric moisture. Once cured, the product forms a high performance, flexible coating with good abrasion, scratch and weather resistance.

StrataShield Sealer Coat provides exceptional UV protection and is ideal for use over aromatic polyurethane waterproofing membranes such as the StrataShield ProFlex System.

Features & benefits

- Hard-wearing top coat finish
- Easy to install
- Excellent UV stability
- Abrasion and weather resistance
- Rapid curing
- Available clear or pigmented

StrataShield Sealer Coat



Substrate requirements

In order to achieve a good penetration and bonding, the substrate must be clean and dry, free of dust, loose particles, oils, organic residues or laitance. The surface must be flat and levelled, and any cracks or fissures must be repaired prior to application. A pull-off load test must also be performed showing a minimum resistance of 1,4 N/mm².

Recommended environmental conditions

The substrate temperature should be between 10°C and 30°, with moisture levels at less than 4%. At higher temperatures, specific precautionary measures must be taken - please consult Strata Technical Services for further advice. In addition, the relative humidity of the air should be less than 85%, as higher moisture conditions can lead to bubble formation under the membrane surface.

Technical characteristics: pre-application

Properties	Unit / Description
Chemical description	Solvent borne single-component aliphatic polyurethane
Physical state	Liquid
Packaging	Metal containers: 4 / 20 kg (clear) 6 / 25 kg (pigmented)
Non-volatile content	50%
Flash point (ASTM D 93)	36°C
Colour	As specified
Density (20°C)	0.95 g/cm ³
Viscosity (5°C)	890 mPa.s
Viscosity (10°C)	660 mPa.s
Viscosity (20°C)	410 mPa.s
Viscosity (30°C)	230 mPa.s
VOC content (g/L i %)	468.76 g/l
VOC class as per 2004/42/EC	Product subclass: i II Solvent based single-component performance products Limit from 01/01/2010: 500 g/l
Pot life (1 kg, 20°C, 50% hr)	6 hours
Storage	Keep at a temperature below 30°C, away from ignition sources and moisture
Use before	Can be used up to 12 months after manufacture in its sealed original container

Technical characteristics: final product

Properties	Unit / Description
Final state	Solid elastomeric membrane
Colour	Depending on the chosen pigmentation
Shore hardness (ISO 868)	60D
Max elongation	70%
Max tensile stress	15 MPa
UV resistance	UV resistant. Aliphatic polyurethanes are colour-stable and non-yellowing
Water vapour permeability (UNE EN ISO 7783)	2.7 g/m ² day
Abrasion (Taber, CS-10, 1 kg)	11 mg
Thermal resistance	Stable up to 80°C
Slip resistance (UNE EN 12633-2003)	Class 3 with quartz sand spread into product (0.4 - 0.9mm) @ 1 kg/m ³
SRI Index (ASTM E1980-01)	104.5 - 105.4 (white pigmented)

Chemical resistance

Chemical	Result (0=worst, 5=best)
Water (15 days, 80°C)	5
Salt water - saturated (5 days, 80°C)	5
Hydrochloric acid solutions	
(200g/l, 7 days, 80°C) (20g/l, 7 days, 80°C)	0 3 (discoloration)
Sodium hydroxide solutions	
(40g/l, 28 days, 80°C) (4g/l, 28 days, 80°C)	4 5
Ammonia (28 days, 80°C)	5
Bleach, pure (28 days, 80°C)	3
Bleach, 10% solution (28 days, 80°C)	4
Xylene (7 days, 80°C)	0
Isopropyl alcohol (7 days, 80°C)	0
Engine oil (28 days, 80°C)	5

Chemical resistance - superficial contact

Chemical	Result (0=worst, 5=best)
Acetic acid, 6% (24 hours)	5
Hydrochloric acid solutions	
(200g/l, 7 days, 80°C) (20g/l, 7 days, 80°C)	0 3 (discoloration)
Sodium hydroxide (40g/l, 28 days, 80°C)	4

Application guidelines

Prepare all critical areas in accordance with advice from Strata Technical Services. For all applications onto StrataShield ProFlex and Rapide Systems, a second coat of StrataShield Sealer Coat can be applied when the first one is no longer sticky. Do not wait more than 24 hours before applying the second coat in order to ensure good intercoat adhesion. It may also become necessary to reapply the product if previous layers become worn out due to traffic, weather, corrosion etc.

Apply the product by roller or brush at a coverage rate of approximately 200-500g/m². Please note that airless spraying equipment is not recommended due to the risk of microbubbling. Although not strictly necessary, it is strongly recommended that the entire contents of the container is used during application (subject to normal coverage rates). However, if some product remains in the packaging, ensure that it is completely sealed after use.

Please also note that the solvent used in this product might damage certain roller materials. If in doubt, please test before use.

Curing time

Curing time will be dependent on particular environmental conditions. The curing rate will increase with higher temperatures and higher levels of humidity. The following table gives a rough estimation of the curing time under various conditions for a 200g/m² coat.

Environmental conditions	Dry to touch
25°C, 50% RH	2 hours
30°C, 50% RH	3 hours

Return to service

At usual conditions (25°C, 50% RH) the membrane can be walked on (light traffic) after 24-48 hours. Depending on final use, it is recommended to wait 7 to 10 days where there will be heavier trafficking. It may take up to 15 days for the final hardness to develop.

Cleaning and maintenance

Liquid StrataShield Sealer Coat can be cleaned from tools etc using any solvent approved by the manufacturer, along with acetone and alcohols. Once hardened, the product cannot be dissolved.

For stain removal, a surface treatment using an approved solvent or isopropyl alcohol may be attempted. Strong acids are not recommended, and some solvents may damage the membrane. If this happens, the affected area must be cut out and repaired with a new application of StrataShield Sealer Coat. A final treatment and periodic maintenance with protective wax is recommended - please consult Strata Technical Services for further guidance.

Health and safety

StrataShield Sealer Coat contains isocyanates and flammable solvents. Always follow the instructions provided in the material safety data sheet and take the precautions described there. As a general rule, suitable ventilation must be ensured during application and all ignition sources must be avoided. This product is intended for professional use only and should only be used in the way described on this datasheet. Spray application is not recommended due to health & safety reasons.

Environmental considerations

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager. If any residual product remains in the containers, do not mix it with other substances without checking for possible dangerous reactions.

Trouble shooting

Problem	Observation / Solution
Product is not curing as expected	Has a suitable solvent been used? Some thinning solvents are not suitable Apply a second coat using a recommended solvent as a dilutant
Surface of product appears to be bubbling	Is the substrate porous? If so, porous substrates may need priming. Seal with an epoxy-type primer before application
	Is airless spraying equipment being used? This method of application is not recommended. StrataShield Sealer Coat should only be applied using a brush or roller.

Further information

The information contained in this datasheet, along with any advice provided (either written or verbal) through testing are based on our experience and do not constitute any product guarantee for the installer.

We recommend that all of the information provided is carefully studied before proceeding with application, and strongly advise that suitable tests are carried out onsite before application in order to determine the suitability and compatibility for the specific project.

The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. As a result, the installer will be solely responsible for any damage derived from the partial or complete disregard of our guidance or the general mis-use of any of our materials.