

Decothane Clearglaze

High performance, clear polyurethane coating

Product Description Decothane Clearglaze is a clear aliphatic, polycarbonate polyurethane coating which forms an effective barrier to water penetration and the ingress of atmospheric chemicals.

Uses

- Suitable for applications where it is desirable to retain the appearance of the underlying substrate.
- It is particularly suitable for protecting porous stone, decorative aggregate panels and brickwork against water penetration and subsequent frost damage.
- Also suitable for use as a waterproof, anti-shatter coating over glass and rooflights.
- Ideal for protecting reinforced concrete against carbonation.

Characteristics / Advantages

- High solids formulation
- Moisture triggered curing – does not foam when excess moisture is present
- “Wet look” finish
- Does not discolour with age or prolonged UV exposure
- Effective barrier to carbon dioxide diffusion

Tests

Approvals / Standards Resistance to fire - Class “O” rating on concrete surfaces BS 476 Part 6 and 7

Product Data

Appearance Clear / Transparent

Packaging 15 litres
5 litres

Storage

Storage Conditions / Shelf Life Store in original, unopened and undamaged sealed packaging in dry conditions at temperatures $>0^{\circ}\text{C}$ and $< 25^{\circ}\text{C}$. Protect from frost.

A shelf-life of 12 months is achieved when stored in accordance with the above recommendations at a temperature of 20°C . Exposure to higher temperatures will reduce the shelf-life.

Reference should also be made to the storage recommendations of the material safety datasheet.

Roofing



Technical Data

Chemical Base	One-component moisture-triggered aliphatic, polycarbonate polyurethane.	
Density	1.20 (23°C)	(EN ISO2811-1)
Solid Content	~ 59.5 % by volume / ~ 64.9 % by weight	
Flash Point	86°C	
Service Temperature	-50 to +80°C. No change after 500 hours at 80°C other than slight discolouration.	
Water Vapour Permeability	9.02 g./m ² /day at 600 microns (unreinforced).	BS.3177 (0 - 75% R.H)
Accelerated Weathering	QUV ASTM G53.77 – 5000 hours. No deterioration; clarity retained.	

Resistance

Chemical Resistance	Resistant to standard 10% solutions of mineral acids, most alkalis, acid rain and detergents. Some oils and solvents may soften the surface. Salt spray to BS.3900 Part 4 and ASTM B117 - 500 hours. No rusting, blistering or delamination.	
Impact Resistance	Withstands 5mm indentation without damage to film.	BS.3900: Part E3
Glass Shatter Resistance	Class B (unreinforced) at a coverage rate of 1 L./m ² .	BS.6206
Anti-Carbonation	Equivalent carbonation barrier to 55.36 metres of air at 600 microns. Effective barrier = 50 metres.	

System Information

Minimum Coverage Rates

The coverage rates for Decothane Clearglaze will depend on the intended function of the coating. Please consult technical services for details about specific applications. The following rates are for general guidance only.

Waterproofing - 10 Year Expected Durability

Substrate	Prior to priming all substrates must be clean dry and sound free from any oxidation, mold and any other deleterious materials. For further information please contact technical services	
First Coat	Decothane Clearglaze	0.5 l/m ²
Top Coat	Decothane Clearglaze	0.5 l/m ²

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Typical Test Data - System

Approximate Dry Film Thickness (mm) 300 microns (for general use)
600 microns (for anti-carbonisation/anti-shatter applications)

Tensile Strength (N/mm²) ~25 (unreinforced)

Tensile Elongation 250% (unreinforced)

Tear Strength (N/mm²) 18

Adhesion to glass Elcometer pull off tests >3 N/mm²

Application Details

Substrate Quality

General Preparation

Ensure surface is clean and sound prior to application of Decothane Clearglaze. Any areas contaminated with moss or lichen must be treated with Sika Biowash (clear) to prevent re-development

Substrate Preparation

Bricks, Blocks and Stone

Clay and cement bricks may be coated directly after preparation. Stonework which is clean and free from dirt and other contaminants may be treated directly.

Cementitious Materials

Concrete and screeds etc., must be a minimum of 10 days old before treatment. Please consult our Technical Customer Services Department before applying to highly porous substrates. Adhesion tests should be carried out before overcoating repair mortars.

Glass

Ensure surfaces are clean and degreased before application. Apply to plain and reinforced glass, leaded windows, glazing strips and rooflights, unless total optical clarity must be obtained.

Note: Clearglaze may be lapped onto painted frames but it is not recommended for fully coating external painted surfaces since the paint may discolour and/or flake, resulting in delamination.

Metals

Apply direct to most metals. Please seek advice from Liquid Plastics' Technical Customer Services Department before coating ferrous metals.

Plastics

Clearglaze is particularly suited for use over Liquid Plastics' Decolight®, where the coating protects against water ingress but permits the continued transmission of light into the building. Usual preparation procedures should be observed. Remove any oxidised layers and use localised reinforcement over joints.

Note: Any reinforcement incorporated within the membrane will be visible.

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Slates, Tiles etc.

Sloping slate or tile roofs may be coated directly to prevent water absorption whilst maintaining the original appearance of the substrate. Inspect tiles to ensure that they are firmly adhered. Degrease glazed tiles, clean and allow to dry before applying Decothane Clearglaze. Do not use for treating bitumen coated tiles or shingles, as severe staining will result.

Substrate Priming

Substrate	Primer
Cementitious Substrates	Direct Application
Brick and Stone	Direct Application
Glass	Direct Application
Slate, tiles etc	Direct Application
Metals	Metal Primer (Note Primer will be visible)
Timber Substrates	Direct Application
Existing Decothane	Sika Reactivation Primer
New Decothane	Direct Application

Application Conditions / Limitations

Air Temperature +2°C min. / +35°C max.

Note: when applying Decothane Clearglaze by spray equipment, the material must be kept above 10°C.

Substrate Temperature +2°C min. / +60°C max.

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Substrate Moisture Content	Wood moisture equivalent (wme) (max): < 28% Please note: Reference should also be made to the appropriate primer technical datasheet.
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Relative Air Humidity	20% min. / 85% max.
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Dew Point	Beware of condensation. Surface temperature during application and cure must be a minimum of 3°C above dew point.
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Application Instructions

Mixing	No mixing required
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Application Method	Once the relevant system has been selected, please refer to the above for details of coverage rates. Please note that the rates quoted are for smooth, sealed surfaces. Rough, porous, absorbent or undulating surfaces will inevitably increase the quantity of coating required, particularly at the embedment / first coat stage, to achieve the necessary film thickness and a pin-hole free finish.
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Surface preparation for a clear coating must be thorough, particularly in relation to the removal of all organic growth. Always allow primers and any previous coat to dry/cure thoroughly before applying the following coat. Coatings will generally require curing overnight, although under optimal conditions (at higher temperatures and low relative humidity) work may often recommence sooner. Please consult our Technical Customer Services Department for further details.

Note 1: Do not thin or brush out like conventional paints.

Note 2: When using brushes, the first coat should ideally be applied in one direction only, where possible, the second coat should be applied at right angles to the first.

Application Tools	Application is primarily by brush or roller. Use only dry equipment free from water. Airless spray may be used but this must be followed by the use of a roller to de-aerate. Rollers should be pre-wetted with the coatings when used for this purpose.
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Rollers

Good quality (non shed) medium pile sheepskin roller: Use on flat or undulating but not rough surfaces. Apply in two coats, using light pressure, to bring up to the required coverage rate. Do not overwork. For applications in excess of 1.0 L/m² total coverage, three coats may be required to avoid slump.

Brushes

Always use a soft nylon or bristle brush. Apply in two coats. Apply second coat at right angles to the first wherever possible. Application limits per coat are the same as those quoted for roller applications.

Airless Spray

Up to 0.5 L/m² may be applied in a single coat; greater amounts will require two or more coats. Use a roller after each application to remove entrained air. Use a Graco King 60:1 or equivalent with a tip size of 0.28 to 0.43 mm. The wet coating will not be clear. When not in immediate use, seal off to avoid curing at air exposed points.

Cleaning of Tools	Clean all tools and application equipment with proprietary cleaning solvent immediately after use. Hardened and/or cured material can only be removed mechanically.
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Pot Life

Decothane Clearglaze is designed for fast drying. High temperatures combined with high air humidity will increase the drying process. Thus, material in opened containers should be applied immediately. In opened containers, the material will form a film within 1 or 2 hours.

Curing Details

Applied Product ready for use

Temperature	Relative humidity	Rain resistant	Touch dry	Full cure
+2°C	50%	1 hour	8-10 hours	24 hours
+20°C	50%	1 hour	6 - 7 hours	8 hours (minimum)

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Notes on Application / Limitations

Do not apply Decothane Clearglaze on substrates with rising moisture.

On substrates likely to exhibit outgassing, apply during falling ambient and substrate temperature. If applied during rising temperatures "pin holing" may occur.

Substrate preparation is crucial to ensure durability. Please follow the instructions in the technical datasheet of the corresponding Primer and pretreatment.

Applications of Decothane Clearglaze in confined spaces must be undertaken in accordance with material safety datasheet recommendations.

Do not apply close to the air intake vents of running air conditioning units until either switched off or isolated as vapour may be drawn into the building.

Do not apply cementitious products (e.g. tile mortar) directly onto Decothane Clearglaze.

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, please refer to the most recent Material Safety Data Sheet.

Disclaimer

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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Specification assistance

NBS is the industry standard specification system, which allows architects, specifiers and engineers to insert clauses into specifications by manufacturer and product, making the process quicker and more efficient. We are members of NBS Plus and therefore detailed up-to-date product information is readily available to create accurate specifications.

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