BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic®-770 BC

Cold, liquid-applied polyurea membrane for roof waterproofing

DESCRIPTION

Sikalastic®-770 BC is a two-component, polyurea-based, cold, liquid-applied waterproofing membrane. Sikalastic®-770 BC rapidly cures and forms a highly elastic, durable, seamless waterproofing membrane with excellent adhesion to a wide range of substrates.

USES

Designed for the following waterproofing application:
- Roof waterproofing for new constructions and refurbishment projects
- Waterproofing of podiums, planter boxes, balconies and terraces
- Repair for hot-sprayed polyurea membranes where spray equipment cannot be used.

FEATURES

- Seamless membrane
- Fast curing
- Self levelling
- Highly elastic and flexible
- Excellent mechanical properties
- Resistant to root penetration
- Cold applied by notched trowel, roller, brush or airless spray

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to European Technical Assessment (ETA) No 24/0043 based on ETAG 005 Part 6 – Liquid-applied roof waterproofing using kits based on polyurethane.
- Test report - Resistance to root penetration according to CEN/TS 14416

PRODUCT INFORMATION

Composition	Aromatic polyurea		
Packaging	**Set A+B metal pails**	**Comp. A**	**Comp. B**
	25.2 kg	22.5 kg	2.7 kg
	16.8 kg	15.0 kg	1.8 kg
Colour	Grey		
Shelf life	12 months from date of production		
Storage conditions	The product must be stored in its original, unopened, and undamaged packaging. Keep in dry conditions at temperatures between +5 °C and +25 °C. Refer to the current Safety Data Sheet for information on safe handling and storage.		
Density	~1.35 kg/l (at +20 °C)		
Flash point	+42 °C (closed cup)		(ASTM D93)
Viscosity	1500–2500 mPa·s (at +25 °C)		(ASTM D2196)

TECHNICAL INFORMATION

Shore A hardness	~70	(ASTM D2240 / DIN 53505 / ISO 868)
Tensile strength	> 8 N/mm²	(ASTM D412 / EN ISO 527-3)
Elongation	~500 % (at +23 °C)	(ASTM D412 / EN ISO 527-3)
Resistance to thermal shock	up to +200 °C (short-term)	
Service temperature	Minimum	-20 °C
	Maximum	+90 °C

APPLICATION INFORMATION

Consumption

Sikalastic®-770 BC is applied in 1 or 2 coats.
Approx. 1.5–2.0 kg/m² depending on the system configuration.

Ambient air temperature

Minimum	+5 °C
Maximum	+40 °C

Relative air humidity

≤ 85 % r.h.

Dew point

Beware of condensation.
The substrate and uncured membrane must be at least 3 °C above dew point to reduce the risk of condensation or blooming of the membrane finish.

Substrate temperature

Minimum	+5 °C
Maximum	+40 °C

Substrate moisture content

≤ 4 % pbw moisture content.
The folllowing test methods can be used:
- Sika®-Tramex meter
- CM - measurement
- Oven-dry-method

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

Substrates

Substrate	Primer
Concrete and Ceramic tiles (unglazed)	Sikafloor®-151 / Sika® Concrete Primer / Sikalastic®-1 C Primer PU
Bituminous felt & coating	Sikalastic® Metal Primer N
Metals ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel	Sikalastic® Metal Primer N
Existing Sikalastic® membrane	Sika® Reactivation Primer / Sikalastic®-1 C Primer PU / Sika® Concrete Primer

Notes:
- For the consumption rates and waiting time / overcoating please refer to the PDS of the appropriate primer.
- Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

Pot Life

~30 min (at +20 °C)

Tack free time

~3 hours (at +25 °C & 55 % r.h.)

Waiting time to overcoating

Minimum	Maximum
2 hours	24 hours

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

SYSTEM INFORMATION

System structure

Layer	Product	Consumption
Primer	Refer to Substrates Section for suitable primer	Refer to PDS of the primer
Basecoat	Sikalastic®-770 BC	≥ 0.8 kg/m²
Reinforcement	Consult Sika Technical Services Department	–
Second Coat	Sikalastic®-770 BC	≥ 0.8 kg/m²
Topcoat	Sikalastic®-670 TC / Sikalastic®-701	≥ 0.3 kg/m²

Notes:

- Sikalastic®-670 TC / Sikalastic®-701 is not required on non-exposed roofs. However, it is always recommended to apply a top coat, in order to increase system perfomance.
- Consult Sika Technical Services Department for different types of reinforcement and its use.
- For the consumption rates and waiting time / overcoating please refer to the PDS of the appropriate product.

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.

IMPORTANT CONSIDERATIONS

Installation work must be carried out by Sika trained and approved contractors, experienced in this type of application.

- Do not use Sikalastic®-770 BC for indoor applications without proper ventilation.
- Do not apply Sikalastic®-770 BC on substrates with rising moisture.
- Do not dilute Sikalastic®-770 BC with any solvent.
- Do not apply Sikalastic®-770 BC close to the air intake vent of a running air conditioning unit. Switch-off units and seal intakes before applying.
- On substrates likely to exhibit outgassing, apply Sikalastic®-770 BC during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- Do not apply Sikalastic®-770 BC directly on insulation boards. Instead, use Sikalastic® Carrier between insulation board and Sikalastic®-770 BC.
- Areas with high movement and irregular substrates requires reinforcement. Consult Sika Technical Services Department for different types of reinforcement and its use.
- Volatile bituminous materials may stain and/or soften below the coating.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Substrate preparation equipment

- Abrasive blast cleaning / planing / scarifying or grinding equipment
- High pressure power washer

Mixing equipment

- Electric single paddle mixer (300-400 rpm)

Application Equipment

- Brush
- Roller
- Notched trowel
- Airless spray

SUBSTRATE QUALITY

Concrete substrates must be sound and of sufficient compressive strength (≥ 25 N/mm²) with a minimum pull off strength of 1.5 N/mm²

SUBSTRATE PREPARATION

The surface must be of sufficient structural strength, clean, dry and free of dirt, oil, grease and other contaminants.
Depending on the material, the substrate must be primed and mechanically cleaned. Grinding may be necessary to level the surface.
Refer to the Sika General Method Statement: Sikalastic®-770 BC for more preparation details including suitable substrates and necessary pre-treatments.

MIXING

Prior to mixing of all components, mix Part A separately using an electric single paddle mixer or stirrer (300–400 rpm). When all of part B has been added to part A, mix continuously for 3 minutes until a uniform mix has been achieved.
To ensure thorough mixing, pour materials into another clean container and mix again to achieve a consistent mix. Over mixing must be avoided to minimise air entrainment.

APPLICATION

Prior to application, confirm substrate moisture content, relative humidity and dew point.
Priming coat must have properly cured and tack-free. Refer to the PDS of the appropriate primer for their respective Waiting Time / Overcoating period.

Single coating application:
Single coat application is suitable on fairly leveled horizontal surfaces and non-absorbent substrates that are not prone to sagging and "pin holing".
Sikalastic®-770 BC can be applied in a single coat to achieve the recommended consumption using an airless spray or knotched trowel. Brush is typically used for detailing application.

Multiple coating application:
Application in multiple coats prevents sagging due to the material's self-levelling property. It also allows touch up repairs within the initial coat, allowing it to be fully sealed from the second coat.
Where multiple coating layer is required, the recommended consumption can be splitted into two or three coats to built up the required thickness using a knotched trowel or roller. Brush is typically used for detailing application. Allow the indicated waiting / overcoating time between coats.

Reinforcing Sikalastic®-770 BC:
Sikalastic®-770 BC typically requires partial reinforcement over areas of stress or predictable movement such as joints, overlaps, detailings and cracks. Fully reinforcing Sikalastic®-770 BC is an option for more critical applications. Refer to Sika General Method Statement: Sikalastic®-770 BC or contact Sika Technical Services Department for suitable reinforcements.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with a suitable thinner (Xylene / MEK / Acetone) immediately after use. Hardened material can only be removed mechanically. Sikalastic®-770 BC is a fast setting material, thus, proper cleaning and maintenance of spray equipment is important.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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