BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic®-870 BT

Fast curing liquid applied pure polyurea membrane with high acidic and alkaline chemical resistance

DESCRIPTION

Sikalastic®-870 BT is a two part, elastic, polyurea liquid applied membrane. It features a high acidic and alkaline chemical resistance and a very fast curing time.

USES

The Product is used as a waterproof coating on concrete, cementitious, and steel surfaces including:
- Primary and secondary containments
- Wastewater treatment plants
- Mines and mining processes
- Ballast tanks
- Silage tanks and troughs
- Sludge digesters

CHARACTERISTICS / ADVANTAGES

- Almost immediate return-to-service time
- Very good crack-bridging ability
- Good resistance to abrasion
- Good resistance to specific chemicals
- Very fast reactivity and curing time
- Impermeable to liquids

APPROVALS / STANDARDS

J.S. Manual (Layer method for method categories C and D) - Technologies for concrete structures of sewage works (Version of July 2007)

PRODUCT INFORMATION

Chemical Base	Pure Polyurea	
Packaging	Part A (Isocyanate)	200 kg drum (net)
	Part B (Polyamine)	175 kg drum (net)
	Part C (Colour)	15 kg container (net)
Shelf Life	Part A	12 months from date of production
	Part B	12 months from date of production
	Part C	12 months from date of production
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect the Product from direct sunlight. Always refer to packaging.	
Appearance / Colour	Part A	Clear –Light Yellowish liquid
	Part B	Medium brown liquid
	Part C	Grey liquid

IMPORTANT
Discolouration due to exposure to sunlight
When the product is exposed to direct sunlight there may be some discol-

ouration and colour variation. This has no influence on the function and performance of the membrane. Contact your Sika technical services to check if a UV resistant product is required.

Density	Part A	1.05 kg/L	(EN ISO 2811-1)
	Part B	1.00 kg/L	
	Part C	1.05 kg/L	
	Density values determined at +23 °C		
Solid content by weight	100 %		

TECHNICAL INFORMATION

Shore D Hardness	< 42	(JIS K 6253-1)
Resistance to Impact	No cracks or peels	(JIS A 6916)
Tensile Strength	> 18 N/mm²	(JIS K 6252-1)
Elongation at Break	> 200 %	(JIS K 6251)
Tear Strength	> 75 N/mm²	(JIS K 6252-1)
Service Temperature	Performs in constant dry temperatures from -30 °C to +60 °C	
Permeability to Water Vapour	0 g	(JIS A 1404)
Chemical Resistance	Resistance to alkali — No bulges, cracks or peels	(JIS K 5400)
	The Product is not resistant to biogenic sulphuric acid.	

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B + Part C = 1 : 1	
Consumption	1.10 kg/m² per mm thickness	
Layer Thickness	> 2 mm	
Product Temperature	Part A	+67 °C
	Part B + Part C	+53°C
Ambient Air Temperature	Maximum	+40 °C
	Minimum	- 5 °C
Relative Air Humidity	< 85 %	
Dew Point	Beware of condensation. The substrate and uncured applied product must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.	
Substrate Temperature	Maximum	+50 °C
	Minimum	0 °C
Curing Time	24 hours at +20 °C	
Gel time	15 s at + 23 °C	
Waiting Time / Overcoating	1–2 min at +23 °C	

BASIS OF PRODUCT DATA

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.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

- Drum stirrer
- Air driven or electrical 2K hot spray plural-equipment

SUBSTRATE QUALITY

- Cementitious substrates (concrete / screed) must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1.5 N/mm².
- Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

MIXING

Do not dilute with solvent or water.

1. Pour all the container of Part C into the drum of Part B
2. Thoroughly stir the single drum of coloured resin using a drum stirrer to obtain a uniform colour.
3. Heat all three parts: **Part A** +67 °C : **Part B + Part C** +53°C.
4. Dose and mix with the spray equipment making sure constant air pressure is maintained.
5. Regularly check and control the accuracy of the mixing and dosage. The proportioning equipment must be capable of consistently supplying the correct pressure and heat.

APPLICATION

IMPORTANT

- **Ventilation in confined spaces**
  - Always ensure good ventilation when applying the product in a confined space.
- **No application on unprimed or unlevelled substrates**
  - Only apply the product on primed or levelled concrete and screed surfaces.
- **No application on rising moisture**
  - Do not apply on substrates with rising moisture.
- **No application on out-gassing substrates**
  - Do not apply on porous surfaces where significant moisture vapour transmission (out-gassing) will occur during application.
  - Apply the product using compatible electrical 2-component hot spray plural equipment.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Thinner C or approved solvent immediately after use. The application equipment must be cleaned and filled with Mesamoll. Hardened material can only be removed mechanically.

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.

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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