BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic®-853 R AP

Ultra fast hot spray applied waterproofing membrane

DESCRIPTION

Sikalastic®-853 R AP is a 2-part, polyurea, hot spray applied, crack-bridging, roof waterproofing membrane. It requires a top coat when applied to fully exposed area.

USES

Sikalastic®-853 R AP may only be used by experienced professionals.

Designed for the following waterproofing applications:
- Balcony and terrace decks underneath a protective layer (i.e. ballast, paving slabs, tiles)
- For waterproofing application on steel and concrete. Typical use: Protection for Civil Engineering structure
- Underground concrete structures. Typical uses: Protection for underground concrete structure

CHARACTERISTICS / ADVANTAGES

- Fast curing, seamless finish
- Good elasticity and elongation at break
- Fast application
- Applied by 2-Component hot spray equipment
- Easily detailed around complex geometries
- Good chemical resistance
- Good adhesion to many substrates with the appropriate primers
- Thickness: ~1.5–2.0 mm

APPROVALS / STANDARDS

- Sikalastic®-853 R AP is in conformance with JIS A 6021

PRODUCT INFORMATION

Chemical Base	Modified Polyurea
Packaging	Part A (Isocyanate) — 200 kg drum — 18 kg tin Part B (Polyol mix) — 175 kg drum — 16 kg tin Part C (Sika® Toner PU) — 15 kg container — 1.4 kg tin Refer to current price list for packaging variations
Shelf Life	12 months from date of production
Storage Conditions	Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.
Colour	Part A — ~Clear / brownish Part B — ~Amber Part C — Grey No.12 (~RAL 7011)

Density	Part A	1.0 kg/l
	Part B	1.0 kg/l
	Part C	1.25 kg/l
	Mixed resin	1.01 kg/l

Values at +23 °C

TECHNICAL INFORMATION

Shore A Hardness	~79 (7 days / +23 °C)	(JIS K6253)
Tensile Strength	~10 N/mm² (7 days / +23 °C)	(JIS A6021)
Elongation at Break	~510 % (7 days / +23 °C) Elastic properties are maintained at temperatures down to -20 °C	(JIS A6021)
Tear Strength	~58 N/mm (7 days / +23 °C)	(JIS A6021)
Chemical Resistance	Resistant to many chemicals. Contact Sika Technical Services for additional information.	
Artificial Ageing	Limited resistance to UV-induced degradation	

SYSTEM INFORMATION

System Structure

Sikalastic®-853 R AP roof waterproofing systems
Note: Sikalastic®-853 R AP can be applied in different roof system build ups for concrete, metal or asphalt substrates. Contact Contact Sika Technical Services for additional information.

Layer	Product	Consumption
1. Primer	Depending on the substrate (Concrete, Metal, Asphalt)	Refer to individual Product Data Sheet
2. Base Coat	Sikalastic®-853 R AP (coloured)	~2.00 kg/m²
3. Top Coat	Sikalastic® -571 Eau Top or	~0.2 kg/m²
	Sikalastic® -680N+	~0.2 kg/m²

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage, etc.

Primers

Substrate	Primer
Concrete	Sika® Concrete Primer or Sikafloor® -156/ 161
Metal	Sikalastic® Metal Primer or Sika® Primer PW-F
Asphalt	Sikalastic® Metal Primer or Sika® Lance-Lock Sheet

Dry film thickness

~1.5–2.0 mm depending on the system

APPLICATION INFORMATION

Mixing Ratio

Part A : Part B = 1 : 1 (by volume)

Product Temperature

Important: Make spray equipment fine temperature adjustments to obtain equal output pressures of the 2 parts.
Note: Higher temperatures provide lower viscosity and lower pressure.

Part A (Isocyanate)	~55 °C
Part B (Polyol mix)	~66 °C

Ambient Air Temperature

+5 °C min. / +35 °C max.

Relative Air Humidity	85 % max.
Dew Point	Beware of condensation. The substrate and uncured applied membrane must be at least +3 °C above dew point.
Substrate Temperature	+5 °C min. / +35 °C max.
Substrate Moisture Content	≤ 4 % parts by weight. The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).

Waiting Time / Overcoating

Important: If the maximum waiting time is exceeded then Sika® Sokan Primer-J must be applied as a bonding bridge.
Before applying Sikalastic® -571 Eau Top or Sikalastic® -680N+ on Sikalastic®-853 R AP allow:

Substrate temperature	Minimum	Maximum*
+10 °C	~90 minutes	~3 hours
+20 °C	~60 minutes	~2 hours
+30 °C	~30 minutes	~2 hours
+45 °C	~20 minutes	~1 hours

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

Drying Time	Cup Gel Test: Gel time (+25 °C) starts after ~20 seconds.

Applied Product Ready for Use

Temperature	Rain Resistant	Foot Traffic
+10 °C	~5 minutes	~90 minutes
+20 °C	~5 minutes	~60 minutes
+30 °C	~5 minutes	~30 minutes
+45 °C	~5 minutes	~20 minutes

Foot traffic applies only for inspection or application of next layer
Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

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.

FURTHER DOCUMENTS

Refer to the Sika Method Statement: Sikalastic®-853 R AP.

LIMITATIONS

Installation work must only be carried out by Sika® trained and approved contractors, experienced in this type of application.
Refer to the Sika Method Statement: Sikalastic®-853 R AP.
Sikalastic®-853 R AP should be protected by UV-resistant topcoat.

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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Refer to the Sika Method Statement: Sikalastic®-853 R AP.

SUBSTRATE PREPARATION

The supporting structure must be of sufficient structural strength to apply all new and existing layers of the roof build-up. Complete roof system must be designed and secured against wind uplift loadings.
Refer to the Sika Method Statement: Sikalastic®-853 R AP.

MIXING

Refer to the Sika Method Statement: Sikalastic®-853 R AP.

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Refer to the Sika Method Statement: Sikalastic®-853 R AP.

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner C immediately after use. 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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