BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic® Rapid-721

Two component, fast-reactive, highly flexible PMMA based waterproofing resin

PRODUCT DESCRIPTION

Sikalastic® Rapid-721 is a seamless, crack-bridging and joint-bridging waterproofing membrane that is able to withstand mechanical stresses. It
contains a highly flexible and fleece-reinforced water-proofing layer as well as abrasion-resistant system lay-ers for foot traffic. The waterproofing system's liquid application and high bonding strength on almost any substrate also allow breakthroughs and upstands to be integrated securely and seamlessly.

USES

- Water-proofing of communal walkways, flat roof structures, podium decks and terrace roofs
- For new construction and refurbishment projects
- Applicable to existing concrete, asphalt, roofing felt, brickwork (subject to condition and priming require-ments)

CHARACTERISTICS / ADVANTAGES

- Cold applied
- Fast-curing
- Highly flexible and crack--bridging even at extreme sub-zero temperatures
- Permanently weather--resistant (UV, hydrolysis and alkali resistant)
- Fully bonded to the substrate, therefore no flow paths for water under the membrane
- Easy and fast application
- Can also be applied at sub-zero temperatures
- Solvent-free
- Seamless membrane
- Minimal disruption and low maintenance
- Elastic properties – tolerant of thermal movement
- Flexible, impact resistant membrane

APPROVALS / STANDARDS

- BBA Accreditation (Cert No: 16/5925)
- External fire performance: BRoof (t4) in accordance with BS EN 13501-5:2005

PRODUCT INFORMATION

Chemical Base	Two-component Polymethylmethacrylate (PMMA) Resin and catalyst	
Packaging	Sikalastic® Rapid-721	10 Kg
	Sikalastic® Rapid Catalyst	0.2 Kg
	Total	10.20 Kg
Colour	Pigmented liquid RAL 7043 (Dark Grey)	
Shelf Life	6 months	
Storage Conditions	Store products sealed in their original airtight container and in a cool, dry and frost-free place. Direct sunlight on the containers should be avoided, including on site. After removing some of the contents, reseal the contain-ers so they are airtight.	

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

Density	1.22 g/cm³	(EN ISO 2811-1)

SYSTEM INFORMATION

System Structure

Communal Walkways - Durability dependent on condition of the substrate Sikalastic Rapid Trafficable (Wearing system)

Preparation	Prior to priming all substrates must be clean dry and sound free from any oxidisation, mould and any other deleterious materials. For further information please contact technical services	
Waterproofing Layer (Upstands)	Sikalastic® Rapid -721 Thixo (Wet on wet application) Sikalastic® Rapid Fleece 110 (0.26m width)	2.5kg/m²
Protective Layer	Sikalastic®-Rapid Levelling Mortar	4.0kg/m²
Wearing Layer	Sikalastic®-Rapid Aggregate Sikalastic®-Rapid Pigmented Sealer	3.0kg/m² 0.6kg/m²

Communal Walkways - Durability dependent on condition of the substrate Sikalastic Rapid Trafficable (Waterproofing & wearing system)

Preparation	Prior to priming all substrates must be clean dry and sound free from any oxidisation, mould and any other deleterious materials. For further information please contact technical services	
Waterproofing Layer (Upstands)	Sikalastic® Rapid -721 Thixo (Wet on wet application) Sikalastic® Rapid Fleece 110 (0.26m width)	2.5kg/m²
Waterproofing Layer (Field Areas)	Sikalastic® Rapid-721 (Wet on wet application) Sikalastic® Rapid Fleece 110 (1.05m width)	2.5kg/m²
Protective Layer	Sikalastic®-Rapid Levelling Mortar	4.0kg/m²
Wearing Layer	Sikalastic®-Rapid Aggregate Sikalastic®-Rapid Pigmented Sealer	3.0kg/m² 0.6kg/m²

Communal Walkways - Durability dependent on condition of the substrate
Sikalastic Rapid Trafficable (Buried system)

Preparation	Prior to priming all substrates must be clean dry and sound free from any oxidisation, mould and any other deleterious materials. For further information please contact technical services	
Waterproofing Layer (Upstands)	Sikalastic® Rapid -721 Thixo (Wet on wet application) Sikalastic® Rapid Fleece 110 (0.26m width)	2.5kg/m²
Waterproofing Layer (Field Areas)	Sikalastic® Rapid-721 (Wet on wet application) Sikalastic® Rapid Fleece 110 (1.05m width)	2.5kg/m²
Protective Layer	Sikalastic® Rapid-721 Sikalastic®-Rapid Aggregate	0.6kg/m² 3.0kg/m²
Wearing Layer	Tiles or Pavers	

Waterproofing for Roofs (infrequently trafficked)

Preparation	Prior to priming all substrates must be clean dry and sound free from any oxidisation, mould and any other deleterious materials. For further information please contact technical services	
Waterproofing Layer (Upstands)	Sikalastic® Rapid -721 Thixo (Wet on wet application) Sikalastic® Rapid Fleece 110 (0.26m width)	2.5kg/m²
Waterproofing Layer (Field Areas)	Sikalastic® Rapid-721 (Wet on wet application) Sikalastic® Rapid Fleece 110 (1.05m width)	2.5kg/m²

APPLICATION INFORMATION

Ambient Air Temperature	-5 °C min. / +35 °C max.
Relative Air Humidity	The relative humidity must be ≤90%
Substrate Temperature	+3 °C min. / +50 °C max.
Dew Point	Beware of condensation. Surface temperature during application and cure must be a minimum of 3°C above dew point. The substrate temperature must not be less than +3°C if a topping is applied to the surface. Reaction problems can occur at lower temperatures.
Substrate Moisture Content	The surface to be coated must be dry and ice-free The surface must be protected from moisture until the coating has hardened
Substrate Pre-Treatment	**Substrate Priming**

Substrate	Primer
Cementitious Substrates	Sikalastic® Rapid Cementitious Primer
Brick and Stone	Sikalastic® Rapid Cementitious Primer
Tiles	Sikalastic® Rapid Cementitious Primer - Adhesion test required
Asphalt	Sikalastic® Rapid Asphalt Primer
Bituminous Felt	Not required
Single Ply	Adhesion to single ply may vary depending on type, age, etc. Consult Sika Liquid Plastics for further advice on priming requirements.
Bituminous Coatings	Sikalastic® Rapid Asphalt Primer
Metals	Sikalastic® Metal Primer or Sika® Primer 204N
Timber Substrates	Timber based roof decks require a layer of S-Vap 7000E DP. For small areas of exposed timber (i.e. upstands) use Sikalastic® Rapid Cementitious Primer, (exposed timber should be Marine ply to BS 1088 or equivalent).
Paints	Always remove coats of paint completely.
Polyurethane Coating	Not required

Pot Life	The material in opened containers should be applied immediately At 20°C, 2% catalyst the pot life is approximately 15 minutes

Applied Product Ready for Use

Temperature	Catalyst	Rain resistant	Can be trafficked/ overcoated	Full cure
20°C	2%	30 minutes	1 hour	3 hours

Note: Times are approximate and will be affected by changing ambient conditions.
Higher temperatures or greater proportions of Sikalastic Rapid Catalyst will reduce reaction times, while lower temperatures and smaller proportions of Catalyst will increase reaction times.
The following table indicates the recommended amount of Sikalastic Rapid Catalyst required to adjust the curing reaction to the temperature.

Substrate temperature in °C; required amounts of Sikalastic Rapid Catalyst in % w/w (guide)

+3	5	10	15	20
4%	4%	4%	2%	2%
25	**30**	**35**	**40**	**50**
2%	2%	2%	1%	1%

Return-to-service times are provided as a guide only and may vary as a result of conditions. Newly installed balconies should be protected from exposure to heavy traffic by overlaying with an appropriate protective covering. This is particularly critical where early access is needed by other construction related traffic. Sika Liquid Plastics will not be held responsible for damage to balcony surfaces that results from failures to adequately protect newly laid areas.
For further advice, consult Sika Liquid Plastics Technical Customer Services

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

Substrate preparation is crucial to ensure durability. Please follow the instructions in the technical datasheet of the corresponding Primer and pretreatment.
Applications of Sikalastic® Rapid-721 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.
All areas requiring anticorrosive protection must be installed over an appropriate metal primer that has been applied directly to bright metal.
All joints; areas subject to differential movement; guttering and drainagechannels; and repairs; must be treated with local reinforcement.
Adhesion suitability must be verified practically on site prior to commencing contract. Refer to Sika Liquid Plastics recommendations and this Technical Data Sheet for installation guidance.
This document provides the most up to date information at the time of print, but is subject to change without notice and should not be used in isolation for pricing purposes. Please refer to Sika Liquid Plastics for project specific information and the latest advice.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, please refer to the most recent Safety Datasheet.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Substrate preparation is crucial to ensure durability. Please refer to the Sikalastic Rapid Method Statement or Sika Liquid Plastics specification for more information.

MIXING

Use a twin-paddle stirrer to mix the product First stir the tub contents thoroughly.
Then add the Sikalastic® Rapid Catalyst while stirring the resin at the slow speed setting and mix for 2 minutes. Make sure that the product on the base and sides of the container is mixed in. At product temperatures <10°C the product should be stirred for 5 minutes,as the catalyst will take longer to dissolve.

APPLICATION

Apply Sikalastic® Rapid-721 & Sikalastic® Rapid -721 Thixo using a sheepskin roller or brush for areas that are not accessible with a roller.
Sikalastic® Rapid-721 is applied together with Sikalastic® Rapid Fleece 110 reinforcement for waterproofing large areas and details on roofs as well as for waterproofing water-impermeable concrete joints.
Sikalastic® Rapid -721 Thixo is a variant of Sikalastic®

Rapid-721 that is more viscous / thixotropic to reduce run-off when applied to sloping and vertical surfaces. Use Sikalastic® Rapid-721 for waterproofing horizontal areas. Sikalastic® Rapid -721 thixo is used for vertical surfaces (e.g. upstands on details)..
Refer to Sikalastic® Rapid Method Statement for more information

CLEANING OF TOOLS

If work is interrupted or when it is completed, clean the tools thoroughly with Sikalastic® Rapid Cleaner within the pot life of the material (approx. 10 minutes). This can be done with a brush. Do not use the tools again until the cleaner has evaporated fully. Simply immersing the tools in the cleaner will not prevent the material hardening.

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 the 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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