

Bitustick R 400

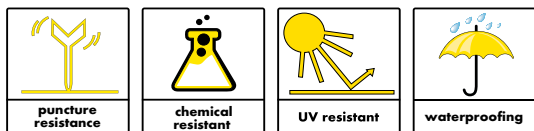
Polypropylene fleece surfaced protection membrane

Polymer modified bituminous self adhesive anti-root, waterproofing and protection membrane



CHARACTERISTICS

- ▶ Excellent adhesion on different application decks
- ▶ High resistance against root perforation
- ▶ Wear resistant
- ▶ Chemical resistant
- ▶ Completely non-biodegradable
- ▶ Very good draining properties
- ▶ Excellent puncture and UV resistance
- ▶ Good adhesion to green concrete upon drying
- ▶ Most suitable to protect bitumen based membranes, tapes and coatings on complicated concrete profiles and pipes



DESCRIPTION

Bitustick R 400 is a SBS modified bituminous anti-root waterproofing and protection membrane. The modified bitumen is laminated onto a tough polypropylene fleece which has a high puncture, chemical and UV resistant properties. A selvedge is provided on the overlaps, which ensures a strong bitumen to bitumen contact, thus restricting any water penetration through the laps. Bitustick R 400 conforms to the requirements of BS 8102.

FIELDS OF APPLICATION

Bitustick R 400 is used for waterproofing and protection of concrete foundations and any below ground structures. Due to its tough polypropylene fleece, it has high resistance to root perforations and can be used in areas where anti root properties are required. It is also suitable for use as a protection membrane for bitumen based sheet membranes, tapes and coatings on vertical surfaces, pipes and other complicated profiles from puncture and exposure to weather. The membrane has a layer of modified bitumen, which helps it to adhere to any surface, and at the same time provide an efficient waterproofing layer. This property enables the membrane to be used as a damp-proofing membrane also.



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APPLICATION INSTRUCTIONS

The application temperature should be between 5°C to 55°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the self adhesive waterproofing membrane is as follows:

Surface preparation

The surface shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections, protrusions, structurally unsound and friable concrete must be removed and repaired with a suitable Polycrete* concrete repair mortar.

Priming

Apply Polyprime SB* (solvent based primer) @ 4- 6 m²/L to a clean smooth and dry surface by brush, roller or spray. Allow the primer to dry prior to the application of the membrane. As the viscosity of the primer is low, it easily penetrates into the concrete pores which promotes the adhesion between the membrane and the concrete surface. In addition to that the primer also acts as a binder for the dust particles which gets accumulated on the concrete surface even after cleaning

Alignment

Start the installation of all membrane plies from the low point or drains, so the flow of water is over or parallel to the plies, but never against the laps. All overlaps at the membrane seams shall be installed so as to have «up» slope laps over «down» slope laps. Begin membrane application by unrolling the roll of Bitustick R 400 membrane and aligning the side laps.

Application

Peel off the release film from the self adhesive side and start unrolling the membrane and press it to the surface. Smoothen the membrane from the center to the edges in order to drive out entrapped air with a wooden press. Furthermore, an iron roller shall be used for rolling on top of the applied membrane to ensure a proper and strong adhesion of the bitumen compound with the base surface. A 50mm selvedge is provided on one side of the membrane to give a bitumen-to-bitumen contact on the overlaps. However, the end overlaps will be butt jointed as the bitumen will not adhere to the polypropylene fleece. To provide a water tight seal and restrict any water penetration through these butt joints, a min. 200mm wide strip of a double sided bitumen adhesive membrane (Watertite TS 15)* shall be laid on that area prior to the application of the membrane. Once the bitumen strip is put in place, remove the silicone release film from the top and expose the self adhesive bitumen. The Bitustick R 400 membrane will then be applied on top of the exposed Watertite TS 15 overlapping by 100mm. The subsequent membrane will then be overlapped with the other 100mm of Watertite TS 15.

HANDLING

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Bitustick R 400 are supplied in rolls of 1 m x 8m. The rolls are packed in loose boxes to avoid any damage during transit or at site. Care should be taken when storing the membranes on sites and should not be kept within close proximity of any sharp or protruding edges to avoid puncturing or damaging the membrane.

STORAGE & SHELF LIFE

Bitustick R 400 membranes must be stored in a shaded area on wooden pallets neatly covered by a thick fabric and tied securely in a manner that will minimize exposure to sunlight and UV. The membranes shall be protected from all sources of heat and extreme temperatures. The shelf life is 12 months if stored as per recommendations. Excessive exposure to sunlight, UV and other sources of heat during storage will result in considerable deterioration of the product and reduce its shelf life.

HEALTH & SAFETY

Bitustick R 400 contains a tacky bitumen compound which, while applied can stick to human skin. Such stains can be removed by using a cloth dipped in a suitable cleaner.

SUPPLY

Bitustick R 400	1 m x 8m, wt 22kg#
Polyprime SB	20L pail & 200L drum
Watertite TS 15	200mm x10m, wt 2.4kg#
Wooden press	140mm x 210mm
Iron Roller (recommended specification)	head dia 38mm, wt 1.5kg# width 100mm length 350mm
# Approximate weight	

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Thickness, [mm]	3.5	DIN EN 1849-1
Mass per unit area, [kg/m ²]	2.75	DIN EN 1849-1
Top surfacing, [g/m ²] Polypropylene	350	
Softening point [°C]	>105	ASTM D 36
Tear resistance [L/T], [N]	500/450	ASTM D 5147
Tensile strength (L/T), [N/5 cm]	>700/550	DIN EN 12311-1
Elongation [L/T], [%]	40/50	DIN EN 12311-1
Puncture resistance, [N]	>1800	ASTM E 154
Adhesion strength, [N/mm] primed surface	1.8	ASTM D 1000
Chemical resistance [pH]	2.5-11.5	ASTM D 543
UV resistance	Excellent	ASTM G 154
Hydrostatic pressure @5 bar [50m]	No leakage	BS EN 12390 (Part 8)
VOC [g/L]	<50	ASTM D3960/ D 2369

All values given are subject to 5-10% variation

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed. The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

