

Bitustick XL

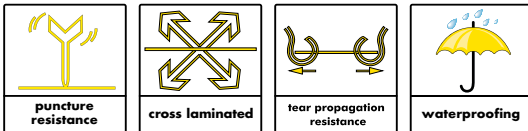
Cross laminated waterproofing membrane

Polymer modified bituminous self adhesive waterproofing membrane



CHARACTERISTICS

- ▶ Specially formulated for tropical climate grade
- ▶ Provides protection against water and vapor
- ▶ Self adhesive. Requires just peeling off the silicone film and sticking to the surface
- ▶ Excellent adhesion to vertical and horizontal surfaces
- ▶ Excellent resistance to chlorides, sulphates, alkalis and acids
- ▶ Good tear and puncture resistance
- ▶ Excellent tensile strength



DESCRIPTION

Bitustick XL is a self adhesive waterproofing membrane based on a tropical grade of polymer modified bitumen. The bitumen compound is laminated onto an impervious, non-perforated, cross laminated HDPE film. Bitustick XL conforms to the requirements of BS 8102.

FIELDS OF APPLICATION

Bitustick XL is used as waterproofing and damp proofing membrane intended for concrete protection. It may be used for horizontal and vertical application for tanking below ground structures, subways and retaining walls.

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 system 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

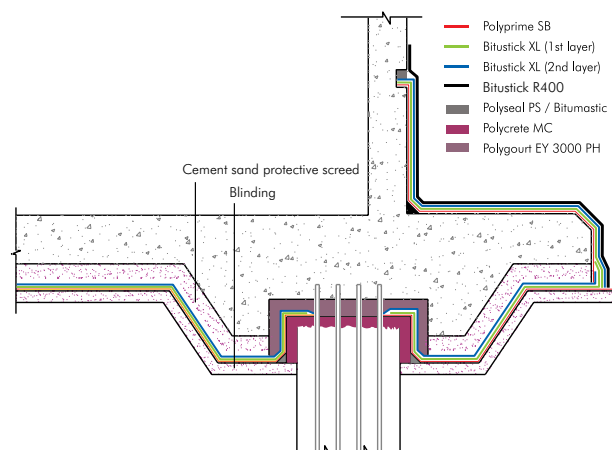
Apply Polyprime SB* (solvent based primer) @ 4- 6 m²/L to a clean smooth and dry surface by brush, roller or spray.



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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 which gets accumulated on the concrete surface even after cleaning.



For illustration Purpose only

Alignment

Start the installation of all membrane plies from the low point or drains, so that 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 XL 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 with a wooden press in order to remove entrapped air. 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. Side overlaps shall be a minimum of 50mm on the selvedge and end overlaps 100mm.

Protection

The membrane shall be protected immediately after application from damage, due to ongoing site activities or from sharp aggregates during backfilling by a tough, weather, warp and rot proof asphaltic protection board (Bituboard / Bitustick R300/ Bitustick R400)*. Alternatively, on horizontal areas the membrane can also be protected by laying a cement sand screed (50mm). Bituboard can be fixed with a double sided adhesive bitumen tape (Watertite TS 15)*.

HANDLING

Bitustick XL membranes are packed in loose corrugated boxes to avoid any damage during transit or during storage at sites. Care should be taken when storing the membranes at sites and should not be kept within close proximity of any sharp or protruding edges to avoid puncturing or damaging the membrane.

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STORAGE & SHELF LIFE

Bitustick XL 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 & UV. The membrane shall be protected from all sources of heat. The shelf life is 12 months if stored as per recommendations. Excessive exposure to sunlight, UV and other sources of heat will result in considerable deterioration of the product and reduce its shelf life.

SUPPLY

Bitustick XL	1.6 mm	1m x 10m	wt 16kg#
	2.1 mm	1m x 10m	wt 21kg#
Polyprime SB		20L pail & 200L drum	
Bituboard	3.2 mm	2m x 1m	wt 7.7kg#
	6.0 mm	2m x 1m	wt 14.0kg#
Bitustick R300	1m x 10m	27kg#	
Bitustick R400	1m x 8m	22kg#	
Watertite TS 15		50mm x 10m wt 0.6kg#	
Woodenpress		140mm x 210mm	
Iron Roller (recommended specification)		Head dia 38mm Wt 1.5kg# Width 100mm Length 350mm	

Approximate weight

HEALTH & SAFETY

Bitustick XL contains a tacky bitumen compound and during application can adhere to human skin. Bitumen stains can be removed by using a cloth dipped in a suitable cleaner.

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Thickness, [mm]	1.6 / 2.1	DIN EN 1849-1
Mass per unit area, [kg/m ²]	1.6 / 2.1	DIN EN 1849-1
Top surfacing	Cross laminated HDPE film	-
Softening point (R&B), [°C]	>105	ASTM D 36
Tensile strength, [Film] [N/mm ²]	Long 42 Trans 48	ASTM D 882
Elongation [Film], [%]	Long 230 Trans 180	ASTM D 882
Tear strength [Film], [N/mm]	Long 340 Trans 310	ASTM D 1004
Adhesion strength, primed substrate [N/mm]	2.0	ASTM D 1000
self [N/mm]	2.2	
Puncture resistance, [N]	>220	ASTM E 154
Hydrostatic pressure @7bar (70m)	No leakage	BS EN 12390 (Part 8)
Water absorption, [Film] [%] @24hrs	<0.14	ASTM D 570
Water vapor transmission, [g/m ² /24hrs]	<0.1	ASTM E 96
Chemical resistance [pH]	2.5 - 11.5	ASTM D 543
Low temp flexibility,	≤ -15°C	ASTM D 1970
Crack bridging ability,	> 1.5mm	ASTM C 836
VOC [g/l]	<50	ASTM D3960/ D2369

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.

