

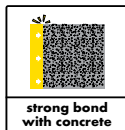
Watertite Xtreme

Stick-to-concrete single layer loose laid waterproofing membrane system

Bituminous loose laid waterproofing membrane laminated on a tough polypropylene fleece for strong bond with concrete structures

CHARACTERISTICS

- ▶ Moisture insensitive
- ▶ Strong & continuous bond with freshly poured concrete
- ▶ Excellent mechanical strengths
- ▶ Chemical resistance against chlorides & sulphates in most soil types
- ▶ Secured overlaps & detailing
- ▶ Quick application turn-around
- ▶ Ready for reinforcement assembling immediately after installation
- ▶ Independent of structural movements



DESCRIPTION

Single layer loose laid waterproofing membrane system using HDPE cross-lamination technology. The highly flexible polymer modified bitumen is sandwiched and laminated with HDPE film and tough polypropylene fleece, with greater mechanical properties and enabling the system to be fully bonded on to the freshly poured concrete using patterned micro-pore mechanics and thus providing an efficient waterproofing barrier by becoming the integral part of the structure built-on.

FIELDS OF APPLICATION

- Waterproofing of sub-structures with deep basements

APPLICATION INSTRUCTIONS

Polyproof Xtreme application temperature shall be between 5°C and 50°C. Application procedures may slightly vary depending on site conditions. The general recommended guidelines for the application of the membrane system, as follows.

Surface preparation

The surface to receive the membrane shall be clean, sound, solid and to be free from sharp protrusions and standing water. Clean thorough of all contaminants like dust, traces of curing compound, oil and grease, where necessary for primer or liquid membrane application. All surface imperfections, protrusions, structurally unsound and friable concrete shall be removed and repaired with a suitable Polycrete concrete repair mortar.

Horizontal Area

The installation of membrane is done in loose laid manner on the blinding concrete in order to keep the system independent



of structural movements. Begin installation from closer to project peripheries, with the PP fleece facing upwards. Begin membrane application by unrolling the sheet and aligning the side and end overlaps. In horizontal and vertical joinery area, membranes shall be overlapped with 300 mm. The overlapping joint is recommended to stay on horizontal area, by bringing the vertical membrane down.

Vertical Area

The areas of shoring wall shall be of smooth surface, that can be facilitated by concrete / plastering / plywood / suitable approved method for the support of membrane. Align and fix membrane on vertical heights using mechanical fixtures such as securing with wooden reapers. Align and fix subsequent rolls using same method and by securing side overlaps. During vertical extensions of membrane based on stages of structure lifting and after removal of reapers, cut any damaged portion of membrane and allow sufficient overlapping of min. 300 mm and continue with the mechanical fixtures on next level.

Overlaps

Side overlaps, ends overlaps and cut portions joineries shall be with 100mm overlapping, using a double-sided tape Bitutape TS – 100mm wide. One side of the release film is removed and the twin sided tape is adhered to the previous layer of membrane and the second side release film is removed and subsequent membrane layer is carefully placed over it, by ensuring the secured seal with firm press using a steel roller.

Pileheads

Reprofile the pile heads using Polycrete MC as per Method Statements provided. Mark and cut the membrane in such a way to ensure its edges and the reprofiled pile head edges are as close as possible, but not with a gap greater than 5mm. Apply primer Polyprime SB, allow to dry and adhere Bitutape TS around the pile head and place the membrane edges over it. The membrane termination around pile head is now to be securely sealed with CJ Seal elastomeric liquid membrane by creating an angle fillet around the pile and further encapsulated using Polygrout EY 3000 epoxy grout.

Membrane Termination

All membrane edges are to be fastened using recommended methods such as encapsulation / groove termination / flashing, as deemed appropriate.

Note: Please refer to our detailed Method statement of installation and drawings for elaborate coverage.

HANDLING

Polyproof Xtreme 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 site and should not be kept within proximity of any sharp or protruding edges to avoid puncturing or damaging the membrane.

STORAGE & SHELF LIFE

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

HEALTH & SAFETY

As with all construction chemicals products, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes of ancillary product to the skin or eyes with fresh water immediately and should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately. Bitumen stains if any, can be removed by using a cloth dipped in a suitable cleaner.

SUPPLY

Polyroof Xtreme	1.6mm	1m x 10m	wt 18.5kg#
Polyprime SB		20L pail & 200L drum	
Bitutape TS		100mm x 10m	wt 1.9kg#
CJ Seal		3kg Kit	
Woodenpress		140mm x 210mm	
Iron Roller (recommended specification)		Head dia 38mm wt 1.5kg# Width 100mm Length 350mm	

Approximate weight

TECHNICAL SPECIFICATION POLYPROOF XTREME

PROPERTIES	VALUES	TEST STANDARDS
Thickness, [mm]	1.6	DIN EN 1849-1
Peel adhesion to fresh concrete, [N/mm]	2	ASTM D 1000
Hydrostatic pressure @ 7bar (70m)	No leakage	BS EN 12390/ ASTM D 5385
Lateral water migration @ 7bar (70m)	No penetration	ASTM D 5385
Tensile strength, [kN/m] L/T	>25/18	ASTM D 5147
Elongation, [%] L/T	>500/300	ASTM D 5147/ ASTM D 638
Tear strength, [N] L/T	1000	ASTM D 5147
Joint shear strength, [N/50mm] L/T	700/500	DIN EN 12317
Puncture resistance, [N]	1300	ASTM E 154
Water absorption, [%]	<1	ASTM D 570
Water vapor transmission, [g/m ² /24h]	1.9	ASTM E 96
Low temperature flexibility, [°C]	-20	ASTM D 5147

All values given are subject to 5-10% variation

TECHNICAL SPECIFICATION - CJ SEAL

PROPERTIES	VALUES	TEST STANDARDS
Consistency	Thixotropic paste	-
Mixed density, [g/cc]	1.60±0.05	ASTM D 1475
Solids content, app. % by wt	100	ASTM D 2369
Pot life, mins	20	ASTM D 2471
Tensile strength, [N/mm ²]	5	ASTM D 412
Elongation, [%]	>500	ASTM D 412
Tear strength, [kN/m]	>15	ASTM D 624
Adhesion to concrete, [N/mm]	2	ASTM D 1000
Adhesion to Polyproof Xtreme, [N/mm]	3	ASTM D 1000
Shore D hardness	20 - 30	ASTM D 2240
Crack bridging ability, [mm]	3	ASTM C 1305
Hydrostatic pressure @ 5 bar	No leakage	BS EN 12390 / ASTM D 5385
Low temperature flexibility, [°C]	-20	ASTM D 1970
Service temperature, [°C]	-20 to 80	-

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.