iSTIK™ 100WXP

WHITE SOLAR REFLECTIVE CROSS LAMINATED SELF ADHESIVE MEMBRANE

DESCRIPTION

iStik 100WXP is a blend of high-performance tropical grade SBS polymer, selected additives and bitumen which is coated on to a high strength, dimensionally stable, non-perforated white solar reflective cross laminated HDPE film to form a self-adhesive membrane. iStik 100WXP is used for the protection of below ground concrete structures against the ingress of water and moisture. iStick 100WXP conforms to BS 8102

RECOMMENDED APPLICATIONS

iStik 100WXP is best suited for protection of below grade concrete structures. The membrane is used for both damp proofing and waterproofing applications. Ideally suited for foundations, retaining walls, underpasses etc.

- Lift pits and manholes
- Underpasses and tunnels
- Retaining walls and foundations
- Foundations of water retaining structures
- As DPC layer under block work for mitigating rising dampness

FEATURES & BENEFITS

- Cold applied – easy and fast application without torching increasing site safety.
- Chemical resistance – withstands corrosive conditions of ground water and soil.
- Cross lamination ensures high dimensional stability when exposed to high temperatures and load
- Self adhering – easy peel and stick method without the need for complicated tools
- Solar reflective: White color reduce the effect of UV and easy identification of damages.
- Factory controlled thickness – ensure equal cover on the whole surface.

TECHNICAL PARAMETERS

PHYSICAL PROPERTIES	TEST METHOD	VALUE
Thickness, [mm]	EN 1849-1	1.6 / 2.1
Top Surfacing Film, [mm]	-	0.1mm Cross Laminated White HDPE
Mass per unit area, [kg/m²]	EN 1849-1	1.6/2.1
Softening point, [°C]	ASTM D 36	>105
Low Temp Flexibility	BS EN 1109	Pass
Tensile strength (membrane) (L/T), [N/mm]	ASTM D 638	3.8/3.8
Tensile strength (Film) (L/T), [N/mm²]	ASTM D 882	40/40
Elongation (L/T), [%]	ASTM D 882	230/200
Tear Strength (Film) (L/T), [N/mm]	ASTM D 1004	320/300
Crack Bridging ability, [mm]	ASTM C 1305	3
Puncture resistance, [N]	ASTM E 154	>300
Resistance to Hydrostatic Pressure @7Bar	BS EN 12390	Pass
Water absorption - 24hrs, [%] 35days, [%]	ASTM D 570	 <0.1* 0.95*
Water vapor transmission, [g/m²/24hrs]	ASTM E 96	<0.1
Adhesion to primed concrete, [N/mm]	ASTM D 1000	2.2
Adhesion to self, [N/mm]	ASTM D 1000	2.4
Chemical resistance, [pH]	ASTM D 543	2.5 to 11.5
Application temperature (Ambient), [°C]	-	10 to 45
Service temperature (Surface), [°C]	-	-20 to 75

*Test done on the surfacing film
All values given are subject to 5 – 10% tolerance

APPLICATION INSTRUCTION

The application temperature should be between 10°C to 45°C. Application procedures may vary slightly depending upon site conditions. Recommended guidelines for the application of the coating system is as follows:

SUBSTRATE PREPARATION

The surface must be clean and structurally sound. Any loose particles on the surface should be removed. Cement laitance, mold, release agents, curing membranes and other contaminants must be removed from the surface by grinding or scarifying followed by vacuum cleaning.

PRIMING

All surfaces should be primed with iKote SB41. Application of the primer can be done by a brush or roller. Commence further activities only after the primed surface becomes touch dry. If the primed area is left open for more than 48hours, repriming might be required depending on the dust accumulation on the surface.

PLACING

Membranes should always be placed from the lower points to the higher levels. This is to ensure that the overlap edges are never against the flow or water. Internal Corner joints should be prepared with sand cement mortar fillet or a preformed fillet. External joints shall be chamfered to remove the sharp pointed edges. A coat of liquid membrane is required to be applied on the corner joint if fillet cannot be placed. The corner joints should be treated with the 300mm reinforcement strip of iStik 100WXP which is laid first. On circular areas a square piece of iStik 100WXP shall be placed with the edges star cut to ensure full bonding. Unroll the membrane and cut it to the right size as required for the substrate. Lay the membrane on the surface and ensure that the alignments are done correctly. Peel of the first 5 cm of the membrane and stick the top portion. Reroll the membrane on the core until the adhered area. Pull the release film off for a length of 20mm and press the membrane on to the surface. While pressing, care should be taken to press the center area and then push towards the sides. This method helps to avoid air entrapment and ensure better adhesion with the substrate. Adjacent rolls are laid with a side overlap of 50mm and end overlap of 100mm. The overlaps should be pressed firmly either with a roller or cloth press for proper sealing. iStik 100WXP should be protected from subsequent construction activities with iShield protection board immediately after application of the membrane. The protection board can either be spot bonded with iBond N20 or with iStik TS. On horizontal surfaces the membrane may also be protected by a sand cement screed. All detailing works on expansion and construction joints, pipe penetrations, internal and external corners must be

IMPORTANT GUIDELINES

- Application of the protection course (Board/membrane/screed) is recommended to be done immediately after application of iStik 100WXP membrane.
- The bitumen compound of the membrane tends to become soft and tacky at elevated temperatures, which makes the application difficult. Membrane application in hot climatic regions during the summer months shall be done during the early morning or late evening times. by the use of a hot air blower or any other suitable means to increase the temperatures.
- Minor wrinkles on the surface of the membrane does not affect the integrity of the waterproofing system.
- For application in submerged structures, contact the Innobit Technical team prior to application.
- iStik 100WXP is not designed to be used on top of slabs which will be subjected to vehicular traffic.
- Conditioning of both the membrane and the concrete surface would be required for application below 15°C by the use of a hot air blower or any other suitable means to increase the temperatures.

PACKAGING

iStik 100WXP 1.6mm	1m x 10m x 1.6mm
iStik 100WXP 1.6mm	1m x 20m x 1.6mm
iStik 100WXP 2.1mm	1m x 10m x 2.1mm
iStik 100WXP 2.1mm	1m x 15m x 2.1mm

STORAGE

Store all materials in a covered, cool, and dry place. The storage temperatures should always be between 5°C and 50°C. Store on a raised platform. Do not store material over the palleted rolls. Caution should be exercised while applying the product as it is with any other bit.
Shelf life is 12 months if stored as per manufacturer's recommendation

HEALTH & SAFETY

Caution should be exercised while applying the product as it is with any other bitumen material. Impervious gloves and barrier cream should be used when handling these products. Bitumen stains on skin can be removed by a suitable solvent. Seek medical attention in critical situation. For more information, refer to the product MSDS.

Disclaimer: All technical data of this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control. Please note that because 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. Information on this data sheet is subject to change without notice and should not be used for writing specification. For additional information on specific applications, please contact INNOBIT. The information contained herein, provides 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 based on the contents of this data sheet, or any verbal advice given, unless there is a case of willful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product. Innobit 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. All values given are subject to 5 – 10% tolerance. #Values achieved within 7 days after casting specimen at 25°C and 50% RH.

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