

TechnoBit® TorchSealPlus

High build flexible smooth surfaced nonwoven Polyeste Reinforced APP Modified Bituminous Waterproofing Membrane.

Description:

TechnoBit® TorchSealPlus is a uniquely formulated prefabricated plastomeric waterproofing membrane manufactured from a rich mixture of bitumen and selected APP (Atactic Poly Propylene) polymers blended together to obtain excellent waterproofing properties with a special multilayered design for superior pliability, tensile strength, workability and resistance to elements. TechnoBit® TorchSealPlus multilayered design consists of a spunbonded polyester core coated on both sides with APP modified bitumen. The polyester core gives the membrane high tensile strength, elongation and superior lap joint strength. TechnoBit® TorchSealPlus forms an impervious, permanently flexible waterproof blanket which accepts normal structural movement without breaking or cracking when installed properly.

Usage:

- For waterproofing of concrete foundations & footings.
- For waterproofing of basements, tunnels, reservoirs and underground concrete structures.
- For waterproofing of roofs, podium deck slab, bridges and car parks.

Features & Benefits:

- Excellent resistance to positive water & vapor pressure.
- Good heat resistance.
- Good dimensional stability under tension.
- Can accommodate structural movements because of excellent flexibility.
- High tensile and tear strengths.
- Resistant to water borne chemicals.
- Total impermeability.
- Excellent resistance to aging and weathering.
- Outstanding bondability and seam integrity.
- Stability at high temperatures.
- Very high resistance to impact & puncture.
- Simple, single-layer installation reduces labour & errors.
- Variety of finishes for exposed and covered applications.

Application Procedure:

TechnoBit® TorchSealPlus application procedure is a standard guideline for using the 3 & 4 mm membranes only, which may slightly vary upon the site conditions & different application areas. For details, consult our Technical representative.

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 polymer-modified mortar.

Application

1- Priming

Apply TechnoSeal® Bitucold SB-Solvent based cold applied bitumen primer @ 300-400gm m² to a clean smooth and dry surface by brush, roller or spray. Allow the primer to dry prior to the application of the membrane. TechnoSeal® Bitucold SB promotes the adhesion between the membrane and the concrete surface.

2- 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 lap. All overlaps at the membrane seams shall be installed so as to have "up" slope laps over "down" slope lap. Begin membrane application by unrolling the roll of TechnoBit® TorchSealPlus membrane and aligning the side laps. Side overlaps should be a minimum of 100 mm and the end overlap 150mm.

3- Torching

TechnoBit® TorchSealPlus membrane is installed by using a LPG cylinder fed gas torch.

- Use of hand-held roofing torch is recommended as it affords a good control.
- Begin torching the embossed polyethylene side of the rolled portion of the membrane.
- As the membrane is heated the embossing starts to melt away exposing a shiny bitumen surface.
- Roll forward the membrane and press firmly with the boot or roller against the substrate to bond well.
- The flame should be moved from side to side and up the lap edge while the membrane is slowly unrolled and adhered to the surface.
- Note: do not over torch the membrane as this will expose the reinforcement and cause damage to it.

4- Sealing

- Heat both the overlaps and use round tipped trowel to seal the overlap.
- Adequate heat is confirmed when a uniform flow of melted bitumen compound flows evenly in a bead that oozes from the applied membrane's edges. Excess compound should be smoothed and pressed into the seam using a heated trowel. Any un-bonded areas must be lifted and re-torched. All angles & abutments upstands should be sealed with extra care to ensure perfect bondage. Seal the edges well into grooves & protect to seal with a **TechnoSeal® Polysulphide / Polyurethane or Bitumastic sealant**.
- **TechnoBit® TorchSealPlus** applied all over the terrace, must be finished with a coating of aluminum paint for non-foot traffic area. For foot trafficked area, overlay with 50mm average thick M20 grade concrete screed mortar duly admixed with **TechnoProof®1 @2%** by

- weight of cementitious materials followed by **TechnoFix® GFM 120**-Geo Textile Fibre mesh cloth of 120 gsm including maintaining 100 mm overlaps.

Packaging:

1.0 x 10 m roll (3 mm, 4 mm)

Storage & Shelf Life:

The membranes must be vertically stacked and stored in a shaded area covered by a thick fabric and tied securely in a manner that will minimize exposure to sunlight and UV. The membranes should be protected from all sources of heat and extreme temperatures. The shelf life is 5 years

Exposure and protection:

Following the application and inspection, care should be taken to prevent damage by following trades. Any punctured or damaged areas should be cleaned and patched using **TechnoBit® ColdSeal LM** –Cold applied Liquid membrane with minimum 100mm laps all around.

Precautions:

- Any naked flame should be kept well away from gas cylinders.
- When ignited the **TechnoBit® TorchSealPlus** should be watched at all times.
- The torch should not be rested on finished roofing.
- Extreme care should be taken when working near combustible materials or items which might be scorched by the gas flame.
- Not to be applied in extreme cold climatic conditions (below 5°C).
- Not to be applied on damp/wet areas & areas subject to moisture restoration.
- Do not overheat the **TechnoBit® TorchSealPlus** membrane i.e. avoid heating when it starts smoking.
- The moisture content on the surface should not exceed 6% to overlay the membrane.
- Use of **TechnoSeal® Bitucold SB-** bitumen based primer is a must.
- Do not apply during rains or extreme temperatures.
- Avoid abuses which may lead to puncturing of membrane.
- Ensure that the product is applied at least 6 inches inside the drain pipe.
- Apply parapet to parapet to envelope the entire building for long term performance.

Application tools and equipment:

The tools and equipment required to apply **TechnoBit® TorchSealPlus** membrane include a gas torch with the gas cylinder, a knife for cutting the membrane to size, and a trowel with a rounded tip. Protective gloves and goggles are necessary when using the gas torch.

Property	Standard	3 & 4 mm	Penetration @ 25 °C	25 ± 5
Tensile / Lap Joint Strength, N / 5 cm <ul style="list-style-type: none"> Longitudinal Transverse 	ASTM D-5147	650 ± 150 450 ± 100	Softening Point, °C	≥150
Tearing Strength, N <ul style="list-style-type: none"> Longitudinal Transverse 	ASTM D-5147	300 ± 100 250 ± 100	Heat Resistance, 120 °C, 2 hr	No flow
Elongation, % @ 23 °C <ul style="list-style-type: none"> Longitudinal Transverse 	ASTM D-5147	40 ± 10 50 ± 10	Cold Flexibility, °C	- 2
Puncture Resistance, N <ul style="list-style-type: none"> Static Indentation 	IS 13826	280 ± 20	Water Absorption, %	0.2

Health and Safety instructions:

Read the product label and Material Safety Data Sheet (MSDS) before use. Users should acquaint themselves with all risk and safety phrases.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd -The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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STERLING TECHNOTRADE INDIA PRIVATE LIMITED

The Specialist Construction Chemical Company®

Head Office: 109-111-112, 1st Floor, Vijaya Building, No. 17, Barakhamba Road, Connaught Place, New Delhi- 110001

Manufacturing Unit: Plot No-J-3, UPSIDC Site C, Surajpur Industrial Area, Greater Noida, Uttar Pradesh 201306

WEB: sterlingtechnotrade.com | **EMAIL:** support@sterlingtechnotrade.com | **TEL:** 011 4508 4212