



Description:

TechnoBit® SelfShield is a robust, flexible, pre-formed high performance self-adhered composite membrane consisting of an SBS rubberized asphalt compound, integrally cross-laminated, high-density polyethylene film with a tacky, self-adhesive rubberized asphalt compound specifically designed to adhere to cured concrete surfaces.

The **TechnoBit® SelfShield** is specifically designed for self-adhering to a prepared substrate and provides a high-performance waterproofing barrier for above grade plaza and parking decks and below-grade basements, tunnels and other subterranean applications.

Application Includes:

TechnoBit® SelfShield is ideally suited for used to-

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:

- **Safe application-TechnoBit® SelfShield** self-adhesive membranes eliminate the need for torching or mopping, i.e., no naked flame on your roof.
- **Easy to use-** Fast and easy installation.
- Application of **TechnoBit® SelfShield** self-adhesive membranes is quicker than traditional and conventional systems.
- **Wide variety of substrates-TechnoBit®SelfShield** self-adhesive membranes adhere to numerous approved substrates.
- **Clean and neat application-**No bitumen bleed-out and no mess caused by hot mopping or torching.
- **Ecological odorless-** Environmentally friendly, No more fumes, odours and noise.
- **Vertical walls-** Laying is particularly easy, quick and comfortable even on vertical walls.
- **Specifically designed** as a barrier to water, moisture and gas by physically isolating the structure from the surrounding substrate.
- **Cross laminated film** is dimensionally stable, with high tear strength, puncture, and impact resistance.
- **Cold applied-**No flame hazard; self-adhesive overlaps designed to provide membrane continuity.
- **Chemically resistant** to most soil conditions, membrane is designed to provide effective external protection against aggressive soils and groundwater.
- **Flexible-**Elongation \geq 300% helps accommodate minor settlement and shrinkage movement.

Applications Instructions

TechnoBit® SelfShield application procedure is a standard guideline for using the 1.5 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® SelfShield** membrane and aligning the side laps. Side overlaps should be a minimum of 100 mm and the end overlap 150mm.

3- 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 75 mm on the selvedge and end overlaps 100 mm.

4- 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. Alternatively, on horizontal areas the membrane can also be protected by laying a cement sand screed (50 mm).

Technical Characteristics

PROPERTIES	VALUES	TEST STANDARDS	PROPERTIES	VALUES	TEST STANDARDS
Thickness, [mm]	1.5 2.0	DIN EN 1849-1	Top surfacing	HDPE film	-
Mass per unit area, [kg/m ²]	1.6 2.1	DIN EN 1849-1	Softening point (R&B), [°C]	>105	ASTM D 36
Tensile strength, [Film] [N/mm ²]	Long 20 Trans 20	ASTM D 882	Elongation @break, [Film] [%]	Long 300 Trans 300	ASTM D 882

- **Controlled thickness-** Factory-made sheet allows for constant, non-variable site application.

Packaging:

- **TechnoBit® SelfShield 1.5 mm** supplied in 1m x 20m, wt 32kg
- **TechnoSeal® Bitucold SB** supplied in 20L pail & 200L drum

Storage & Shelf Life:

TechnoBit® SelfShield 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 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.

Handling Precautions:

The membrane is non-hazardous, non-flammable and therefore can be disposed of in any regular disposal areas. All membranes however should be disposed off only after wrapping with paper, plastic or cloth.

In case of contact with human skin wash with any soft solvents. Seek medical assistance immediately in case of any allergy. 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.

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.

Tear strength, [Film] [N/mm]	Long 120 Trans 110	ASTM D 1004	Adhesion strength, [N/mm] Primed substrate Self	1.8 2.2	ASTM D 1000
Puncture resistance, [N]	>180	ASTM E 154	Water absorption, [Film] [%]@24 hrs	0.14	ASTM D 570
Chemical resistance [pH]	2.5 - 11.5	ASTM D 543	Low temperature flexibility [°C]	<-15	ASTM D 1970
Crack bridging ability, [mm]	> 1	ASTM C 836	Hydrostatic pressure @5bar (50m)	No leakage	BS EN 12390 (Part 8)
All values given are subject to 5-10% variation					

Health & Safety Instructions:

TechnoBit® SelfShield contains a tacky bitumen compound which can stick to human skin during application. Bitumen stains can be removed by using a cloth dipped in a suitable cleaner. 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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