

Expanproof Torch*

Range of torch applied SBS modified bituminous waterproofing membrane

To provide a continuously bonded waterproof membrane for building and civil engineering structures, basements, pile heads, swimming pools & water retaining structures (External), foundation and footings tunnels, wet areas, kitchen & bathroom.

Advantages

- High resistance against water borne chemicals
- Excellent tensile and tear strength
- Fast application.
- Uniform thickness of polymer bitumen membrane
- Good adhesion to primed concrete substrates
- Good dimensional stability under tension
- Excellent resistance to positive and negative hydrostatic pressure
- High puncture and fatigue resistance
- Exhibits good low temperature flexibility with no physical strain
- Produces a continuous waterproof membrane system.

Description

Expanproof Torch is a torch applied SBS modified waterproofing membrane and available in 3 mm, 4 mm and 5 mm thickness, Expanproof Torch is manufactured from premium grade modified bitumen and SBS (Styrene Butadiene Styrene) polymers to obtain excellent waterproofing and low temperature flexibility properties, the polymerized bitumen is coated onto a dimensionally stable reinforcement core of non-woven spun bonded polyester rot-proof fabric.

The membrane has an excellent tensile and tear strength and is highly resistant to puncture. It is flexible and is suitable for applications where high structural movement is expected.

Properties

Product	T3000	T4000	T5000
Thickness ASTM D751	3 mm	4 mm	5 mm
Reinforcement g/m ²	180	180	180
Mass per unit kg/m ²	3-3.3	4-4.3	5-5.3
DIN EN1849-1			
Tensile strength			
DIN EN12311-1			
Long	800 N/5 cm		
Trans	600 N/5 cm		
Elongation @ break			
DIN EN12311-1			
Long	40%		
Trans	50%		
Tear resistance			
ASTM D5147			
Long	>500 N		
Trans	>400 N		
Puncture resistance			
ASTM E154			
>550 N			
Hydrostatic pressure			
@ 5 Bar 50mt.			
BSEN 12390			
No Leakage			
Heat resistant @ 100 °C			
DIN EN52 123			
No flow			
Resistance to ageing			
ASTM G154			
No deterioration			

Specification

The waterproofing membrane shall be a high performance torch applied 3mm/4mm/5mm thick membrane, manufactured from high quality polymer modified bituminous compounds and reinforced with non-woven polyester fabric weight 180 g/m².

Technical support

Fospak provides a technical advisory service for on-site assistance and advice on selection of suitable waterproofing membrane.

Instruction for use

Surface preparation

Concrete surfaces should be float finished and free from cavities and projecting nibs, all surfaces shall be dry and free from dust, laitance curing membrane and any form of contamination which might effect in adhesion.

Priming

Expanproof Primer must be applied to the substrate by brush, roller or spray, and allowed to dry until it is tack free, prior to the application of membrane, the primer is low viscosity and easily penetrate into the concrete pores, the primer promotes the adhesion between the membrane and the concrete surface, the primer also acts as a binder for the dust particles which gets accumulated on the concrete surface even after cleaning.

All surfaces must be re-primed if left for more than 24 hours prior to the application of Expanproof Torch membrane.

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, allow 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 membrane and aligning the side laps. Re-roll the roll halfway and stand on the unrolled portion to prevent shifting. Side overlaps should be a minimum of 100 mm and the end overlaps 150 mm.

Torching

Expanproof Torch membrane is installed by using a cylinder fed propane gas torch, use of hand-held roofing torch is recommended as it affords a good control, if multiple burner torching machines are utilized, care must be taken to ensure the application of uniform heat and avoid overheating of the membrane.

Begin torching the embossed polyethylene side of the rolled portion of the membrane, proper torching procedure involves passing the torch flame in an "L" pattern applying about 75 % of the heat across the coiled portion of the roll and 25% across the substrate, including the lap area of the previously installed 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 propane flame should be moved from side to side and up the lap edge while the membrane is slowly unrolled and adhered to the underlying surface.

Subsequent shift of the roll shall be avoided after heating has begun, when complete, the remaining un-torched membrane shall be re-rolled and installed in the same manner, when one end is completed, re-roll the opposite end not yet torched, and install in the same manner.

Sealing of joints

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 pressed into the seam using a heated trowel, any un-bonded area must be lifted and re-torched, do not attempt to reseal by torching the top surface of the membrane.

Protection

Expanproof Torch should be protected from the getting damaged due to the ongoing site activities and during backfilling, membrane laid on horizontal surface can be protected either by a cement sand screed or by a bituminous protection board Expanproof Board, on vertical surfaces the membrane has to be protected with protection board, the protection board can be fixed on the membrane by torching the underside of the board, or with a double sided bitumen adhesive tape.

Limitation

Do not apply the primer on dusty surface.

Do not apply the primer if the rain is expecting within 2 hours of application.

Do not over torch the membrane as this will expose the reinforcement and cause damage to it.

Do not left the membrane expose to UV attack, immediately cover with screed or protection board.

Estimation / Supplies

Expanproof Torch	:	3 mm – 1 mt. x 10 mt. (Wt. 31 Kg)
	:	4 mm – 1 mt. x 10 mt. (Wt. 41 Kg.)
	:	5 mm – 1 mt. x 10 mt. (Wt. 51 Kg.)
Expanproof Primer	:	20 & 200 Kg. Drum.
Expanproof Board	:	3.20 mm x 2 mt. x 0.95 mt.
	:	6.00 mm x 2 mt. x 0.95 mt.

Coverage

Expanproof Primer	:	3 – 6 sq.mt / Kg.
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Storage

Expanproof Torch and Expanproof Primer has a shelf life of 12 months provided the temperature is kept within the range of 2°C to 35°C. Should the temperature of the product fall outside this range then contact your local Fospak office for advice.

Precautions

Health and safety

Expanproof Torch contains a tacky bitumen compound which can stick to human skin during application. Such stains can be removed by using a cloth dipped in a Fospak Solvent 102.

Any naked flame should be kept well away from the gas cylinder, when ignited the torch should be watched at all times, the torch should not be rested on finished roofing, extreme care should be taken when working near combustible material or items which might be scorched by the gas flame.

Suitable protective gloves and goggles should be worn. Splashes of primer on skin should be removed with Fospak Solvent 102. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately do not induce vomiting.

For further information consult the Material Safety Data.

Fire

Expanproof Primer is flammable keep away from naked flame cleaning and disposal

* Denotes the trademark registered

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