

PROTECT STRUCTURE WITH GUARANTEED SUPERIOR SEAMLESS WATER PROOFING SYSTEM EXPANPROOF* RUBBER-*flex*



Fospak (Pvt) Ltd.
**Leading manufacturer of construction
chemicals in Pakistan**

Expanproof* Rubber-flex

Expanproof* Rubber-flex is a Guaranteed Seamless Rubberized Waterproofing system for the Waterproofing of all types of roofs, basements, retaining walls, underground water tank (External), swimming pool (External), roof garden, etc., details of system is given below.

Instant Curing Spray, Roller & Brush Applied Waterproofing Coating:

A Specially designed **Expanproof* Rubber-flex** a liquid applied seamless highly elastomeric rubber polymer modified bituminous waterproofing system to be applied on cementitious and steel surface.

Expanproof* Rubber-flex provides a highly elastomeric tough waterproofing coating, with excellent crack-bridging ability. Typical applications include:

- Basement
- Drainage & culverts (External)
- External lining in RCC pipes
- Roof slab
- Roof garden
- TT & Pre-cast slab roof
- Swimming pool & Under grout water tank (External)

Advantages

- Highly elastomeric with excellent crack accommodation properties, in dry and wet conditions.
- Excellent bond to concrete, masonry, steel and wooden surface
- Long working life, maintenance free
- Withstands high positive and negative hydrostatic pressure
- Easy application by brush, roller, trowel or spray
- Good resistant to water, sulphates, chlorides, light acid and alkalis
- Bonds to green or damp concrete, even if the concrete is 24 hours old, Breathable, allow water vapors to escape from structure

Use With Reinforcement

Expanproof* Rubber-flex can also be used in conjunction with reinforcement polyester fiber sheet to bridge existing and expected cracks in structure, and to provide more durable reinforced seamless membrane.

Technical Properties:

Appearance	:	Brown Liquid, (Black on dry)
Chemical resistant	:	Ph 2.50 to 11.50
ASTM D543		Alkaline, Neutral & Acidic
Adhesion to concrete	:	212 PSI
ASTM C907		
Hydrostatic pressure		5 Bar (50 Mt) Sample was withstand
Resistant @ 5 Bar	:	or no leakage were found
BSEN 12390 Pt. 8		
Elongation	:	1595%
DIN EN 12311-1		
Puncture Resistant	:	1735 N
ASTM E150		

Comparison Between Liquid Applied System & Sheet Membrane



Expanproof* Rubber-<i>flex</i>	Self – Adhesive Membrane	Torch Applied Membrane
Seamless liquid Membrane	Pre-Formed Sheet Membrane	Pre-Formed Sheet Membrane
No Joints	Lots of Joints on side and at end lap	Lots of Joints on side and at end lap
No Adhesion Failure	Adhesion Failure	Adhesion Failure
100% Contact to Surface	No 100% Contact with Surface due to air pockets	No 100% Contact with Surface due to air pockets
No Wastage	Lot of Wastage and Overlapping approx wastage (7 % - 8%)	Lot of Wastage and Overlapping approx wastage (8% - 10%)
100% Contact at Corners and around pipes due to Liquid Application	No 100% contact at corners and around pipes	No 100% contact at corners and around pipes
If surface punctured the water will not penetrate under the cured membrane	If surface punctured the water will penetrate under the membrane and sheet will detached	If surface punctured the water will penetrate under the membrane and sheet will detached

APPLICATION PROCEDURE:

Surface Preparation:

All surfaces to be waterproofed should be sound, clean and free from any form of foreign material which might effect in adhesion.

Moss and lichen must be removed physically followed by treatment with fungicidal wash to kill any spores and inhibit further growth. After treatment wash down thoroughly with clean water and allow to dry.

Priming:

Priming is not normally required on good quality concrete substrates, however, absorbent surfaces such as porous concrete and sand/cement mortar require sealing to stabilize the surface and provide strong base to **Expanproof Rubber-*flex***. This should be done using a 1:1 mixture of **Expanproof Rubber-*flex*** and Water.

Cracks:

All shrinkage, moving and static cracks should be pretreated with a single coat of **Expanproof Rubber-*flex***, extending 25 – 50 mm either side of the crack, and apply polyester reinforcement on wet coating, and allow to cure before general application

Right angle bends (Optional):

All right angle bends must have a coving, this may be formed in either sand & cement or with Expanseal* Putty, and it must be treated with a layer of **Expanproof Rubber-flex**, then given a reinforcing polyester sheet on wet film, than apply second coat of **Expanproof Rubber-flex** on dry film of first application, extending 100 mm either side of the coving.

Application:

Expanproof Rubber-flex should be applied by brush, roller, trowel or spray (Two coats application on horizontal surfaces) at a minimum wet film thickness of 1.0 mm

On a vertical surface a film build of 1.5 – 2.50 mm is achievable in two to three coats with reinforced polyester sheet. In critical applications where surety of film thickness is paramount, an additional coat should be applied at right angles to one another. Quantities per coat should be gauged to give the specified final film thickness.

Instant Cure Spray System - Expanproof* Rubber-flex can also be applied with special spray unit with special accelerator to instantly cure the coating.

Rate of Application:

Wet Film Thickness	Dry Film Thickness	Required Material / m²
1.67 mm WFT	1.00 mm DFT	1.67 Kg. / m ²
2.50 mm WFT	1.50 mm DFT	2.50 Kg. / m ²
3.20 mm WFT	2.00 mm DFT	3.20 Kg. / m ²
4.80 mm WFT	3.00 mm DFT	4.80 Kg. / m ²

Flood Test for Roof:

If a water test is to be run, then make sure that the **Expanproof Rubber-flex** membrane is fully cured.

Prior to the placement of top protection, flood water 25 – 50 mm in depth for 24 hours. Drains should be plugged to retain the water.

Top Protection:

After completion of water test, cover the waterproofing either by screed or tiles or with protection board as soon as possible.

Performance of membrane:

Expanproof Rubber-flex is blend of polymer modified bitumen, specially selected emulsifier, and water, polymer and emulsifier are imported from USA, cured membrane of Expanproof Rubber-flex is highly elastomeric, totally waterproof concrete, cured membrane is anti-corrosion and life of Expanproof Rubber-flex is more than 20 years.

REGIONAL SALES OFFICES IN PAKISTAN:

Fospak (Pvt) Ltd.

Head Office

702, Business Avenue,
Block-6, PECHS.
Shahra-e-Faisal,
Karachi, Pakistan
Tel # +92-21-34528477, 34529859
Fax # +92-21-34522436
Email info.khi@fospak.com.pk

Lahore Sales Office

2nd Floor Sarwar Shaheed Plaza,
Cavalry Ground,
Main Boulevard,
Lahore Cantt, Lahore.
Tel # +92-42-36675773
Fax # +92-42-36675838
Email info.lhr@fospak.com.pk

Islamabad Sales Office

3rd Floor, Building # 6,
Jinnah Boulevard West Sector A,
DHA Phase 2,
Islamabad
Tel # +322-5001903
+322-5001904
Email info.isb@fospak.com.pk