

## EPDM BASED WATERPROOFING ROOF AND LINING MEMBRANE

### Description

**Dr. Fixit Flexshield** is EPDM rubber based prefabricated membrane. It is used for waterproofing & lining of above & under ground concrete structures, because it exhibit high degree of resistance to water, ozone, UV, weathering, abrasion, extreme temperatures, acids, alkalis and oxygenated solvents.

### Specification

Meets the requirements of ASTM D 4637-96 & D412, D624, D816, D746

### Areas of Application

- Large commercial roofs of concrete, wood, asbestos & metal sheets
- Terrace Gardens
- Basements, Foundations and Podium slab coverings
- Lakes / ponds / reservoirs / canal and tunnel linings
- Swimming pools / fish pond liners
- Rooftops of storage silos

### Product Selector

#### MEMBRANES

- Flexshield Black - roofs of all kind, terrace garden etc
- Flexshield Blue - Roofs of all kinds, Basements, swimming pools, fish pond liners, terrace gardens etc.
- Flexshield BlueT - Basements, lakes, canal, pond with high water column etc

#### BINDING ADHESIVES

Dr. Fixit Flexshield Adhesive - Single Component adhesive for membrane to substrate and membrane to membrane

### Features & Benefits

- Lasts for more than 20 years
- High tensile and tear resistance
- Excellent resistance to UV and ozone
- Retains its elasticity at low temperatures and the resistant to temperature shock from - 20 OC. to + 80 OC.
- Good chemical resistance
- Laid quickly and easily, safe and environment friendly
- No maintenance required
- Minimal extra load on the roof
- Withstands the movement in the structure due to its higher elongation property

### Method of Application

#### 1 SURFACE PREPARATION:

- Substrate needs to be sound, smooth, dry and free of sharp edges, loose or foreign materials, oil, grease and laitance, etc. Mechanical surface preparation methods are strongly suggested to ensure proper adhesion of the membrane.
- The expansion joints need to be properly attended prior to fixing of Dr. Fixit Flexshield. For further details contact Dr. Fixit.
- Before laying the sheets, mark out datum lines with chalk, etc., so that the membranes can be arranged properly and parallelly with reference to the edges of roof area.
- Then first arrange to lay the membrane according to datum line from one side of the roof, and fold back to half its Length.

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### 2 APPLICATION

- Apply bonding adhesive, Dr. Fixit Flexshield Adhesive on to the clean and prepared substrate, and also, on to the back of the membrane that has been folded.
- Before applying Flexshield Adhesive, stir it in the container to achieve a uniform mix with no sediment at the bottom.
- Adhesive must be then trowel applied in a thin even coat on membrane and the substrate. An excess of adhesive will prolong the drying time.
- Care must be taken not to apply Flexshield Adhesive over an area that is to be cleaned later and overlapped to the adjacent membrane (from its underside). This is to be done also at the peripheries of the membranes or their termination (from the underside. Use a chalk line mark or a masking tape on the area to be overlapped (Splicing Area) and the ends of the membrane (for 50-70mm) that has to remain clean.
- Let the solvent evaporate naturally until the adhesive attains a tacky condition. Drying time will defer depending upon the climatic conditions and coverage rate. Never use a hot air dryer to accelerate the process. In temperatures of 30 to 35°C, the drying time is approximately 5 to 10 minutes. Refer datasheet of Dr. Fixit Flexshield Adhesive for more details.
- Unfold back the first half of the Flexshield membrane carefully to ensure that there are no wrinkles during the sticking process. The sticking process can be done with a roller. Since Flexshield comes in a size of 20/25 m long & 1.2/3 m wide, maintaining the parallel position w.r.t to the datum lines, spread and sticking, is very important.
- Repeat the bonding procedure for other half of Flexshield membrane. Keep repeating this procedure for every roll to complete the laying of Flexshield for the entire area.
- An overlap of 50 - 70mm along the length or as specified is a must. A masking tape must be first stuck to the laid membrane.
- Use Dr. Fixit Flexshield Adhesive to adhere the overlapped membrane portions.
- Now, from the underside, remove the masking tape. Apply 2 coats of Dr. Fixit Flexshield Adhesive wet on wet on the underside of the first membrane, and also on the topside of the adjacent overlapping membrane. Please note that the overlapping in case of Flexshield application is done by tucking it below the earlier membrane.
- Thoroughly roll on the overlapped area with a 50-70 mm wide metallic roller.
- In the roof drain outlet points and protrusions and corners areas use Dr. Fixit Flexshield SV membrane for easy & durable installation and bond using Dr. Fixit Flexshield Adhesive.
- If any damages occur due to unavoidable circumstances, apply a patch cut to the required shape with Flexshield membrane itself, and stick with Dr. Fixit Flexshield Adhesive.
- The patch must be 2" more on all sides the damaged area.
- For installation CD contact our technical department.

### Precautions & Limitations

- The concrete or metallic substrate must be completely dry before taking up the application. If some moisture exists, it must be expelled with a blowtorch or a flame torch.
- The roofing structure needs to be stable / sound enough to support the temporary loadings.
- All surface voids greater than 5mm wide shall be properly filled with suitable repair materials from the Dr. Fixit range.
- Use the right bonding agent for the right purpose as directed above.
- Dr. Fixit Flexshield membranes & adhesives are combustible materials. They must be stored in a ventilated Warehouse far away from the fire.
- Handle the Activator with care; do not touch with bare hands and keep away from direct sunlight.
- Adhesives are flammable. Necessary precautions should to be taken during installation and storage.

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### Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Dimensions		1.2X25/3X20 mtrs
Thickness		1.14/1.2/1.5 mm
Tolerance on Nominal Thickness, %	ASTM D 412	± 10
Tensile Strength, min, psi (Mpa)	ASTM D 412	9
Elongation, Ultimate, min %	ASTM D 412	300
Tear Strength, min, (KN/m)	ASTM D 624	27
Factory Seam Strength, min	Modified ASTM D816	Sheet Failure at 24kg
Brittleness Point, max (-45°C)	ASTM D 746	No cracks
Resistance to Heat aging properties after 4 weeks@ (116°C)		
Tensile Strength, min, (Mpa)	ASTM D 412	5
Elongation, Ultimate, min %	ASTM D 412	200
Tear Strength, min, (KN/m)	ASTM D 624	22
Linear Dimensional change, max, %	ASTM D 1204	+0.3
Ozone Resistance- Conditions after exposure to 100 pphm ozone in air for 168 hours @ (40°C) at 50% strain	ASTM D 1149	No Cracks
Resistance to water absorption after 7 days immersion @ (70°C) Change in mass, max, %	ASTM D 471	1.2
Water vapour Permeance, Max, perms	ASTM E 96 ( Proc B or BW)	0.1

### PACKING

- Dr. Fixit Flexshield Black, Blue membranes come in 1.2 m x 25 m rolls in 1.2mm thickness.
- Dr. Fixit Flexshield Blue WIDE membrane come in 3 m x 20 m rolls in 1.14mm thickness.
- Dr. Fixit Flexshield Blue T WIDE membranes come in 3 m x 20 m rolls in 1.5mm thickness.
- Dr. Fixit Flexshield Adhesive is available in a 20 kg metal drum. (Refer separate TDS for Adhesive)

### Coverage

Dr. Fixit Flexshield Black, Blue & Blue T	Covers area of 30 sqmt
Dr. Fixit Flexshield Blue WIDE & Blue T WIDE	Covers area of 60 sqmt

The above mentioned coverage is without considering overlap and wastage. Approximately 10 to 12% should be considered in 1.2 mtrs wide and 7.5 to 10% in 3 m wide rolls.

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### Storage

- Dr. Fixit Flexshield Black, Blue & Blue T membranes should be stored under covered shed in ambient temperature.
- Dr. Fixit Flexshield Adhesive should be stored under covered shed with not contact with sunlight.

### Shelf Life

- Dr. Fixit Flexshield Range membranes - Life Long.
- Dr. Fixit Flexshield ADHESIVE - Six months at 20 degree C.

### Healthy & Safety Precautions

#### Dr. Fixit Flexshield Adhesive

- Bonding adhesive is flammable. Necessary precautions to be taken during transport /storage / use
- Recommended usage / application temperature is minimum 20° c to max. 35° c for better tack and adhesion
- During application / use - dew point should not be less than 3.

### Other Product Categories Available

DR. FIXIT has wide range of Waterproofing & Construction chemicals which includes,

- Waterproofing Products
- Repair Products
- Sealants
- Flooring Products
- Exterior Coating Products
- Tile Fixing Range
- Concrete Admixtures
- Grouts



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