

# Dr. Fixit Flexicoat PU



SINGLE COMPONENT, COLD APPLIED, ELASTOMERIC WATERPROOFING MEMBRANE COATING

**Dr. Fixit Flexicoat PU** is a single component, pitch modified polyurethane, liquid applied coating that is composed of specially developed polymers, properly selected and graded fillers. It cures by reaction with atmospheric moisture to give a tough elastomeric waterproof membrane.

**Dr. Fixit Flexicoat PU** is supplied as a medium viscosity grade for roller, squeegee or brush application to horizontal as well as vertical surfaces.

## Areas of Application

The high elasticity, excellent bond strength with concrete and other substrates, low water permeability of **Dr. Fixit Flexicoat PU** makes it ideal membrane coating for a wide range of water / vapour proofing applications such as

- Foundations, Basements, Lift pits.
- Car decks, Podiums.
- Roof terraces, Balconies, Patios.
- Sewage works and Sunken Portions.

The excellent chemical resistance of **Dr. Fixit Flexicoat PU** makes it particularly suitable for sub-structure applications in areas where chemical contaminants and aggressive ground water conditions prevail.

## Features & Benefits

Due to liquid nature and viscosity it can be applied to any complex shapes to form a seamless uniform membrane coating.

- **Thermal stability** - Irreversible chemical cure eliminates melting and flow at high temperature.
- **High elasticity** - Cures to give a permanently flexible resilient barrier for water over a wide range of temperatures.
- **Crack bridging** - Bridges crack up to 2 mm wide.
- **Excellent adhesion** - Applicable on wide range of substrates with excellent bonding.
- **High chemical resistance** - Excellent protection against corrosive soil conditions, resistance against saline water, mild acids and alkalies, high sulphate resistance.
- **Excellent waterproofing properties** - Forms a tough barrier against water penetration.
- **Durability** - Excellent resistance to oxidation and does not harden over the period.
- **Easy maintenance** - Mechanical damage to the membrane can be easily repaired by spot application.
- **User friendly and easy to apply** - Single component; easy and rapid installations.

## 1 SURFACE PREPARATION

All surfaces to be waterproofed should be sound, clean and dry and free of any laitance, grease and oil, dirt and other loose materials.

Concrete surfaces should have a light steel-trowel followed by a fine hair-broom or equivalent finish which is dry and free of dust, oil and other contaminants. All protrusions to be removed to level the surface.

Algae and fungi must be removed physically followed by treatment with Dr. Fixit Bioclean to eradicate any spores and to inhibit further growth. After treatment leave for 2-3 hrs and then wash down thoroughly with clean water and allow to dry completely.

All metal surfaces to be coated should be made clean of paint, rust and other contaminants. abrade to expose bright metal then wipe clean with solvent to remove any grease or oil stains.

## 2 PRIMING

Priming is not normally required on good quality concrete substrates. However, absorbent surfaces such as porous concrete, sand / cement and cement boards will require sealing to prevent absorption of further coats. Priming shall be carried out using Dr. Fixit Torchshield Primer as per the specifications and allowed to dry for 6-8hrs. Alternatively this should be done using a 1:1 mixture of **Dr. Fixit Flexicoat PU** with nitrated grade moisture free solvents such as toluene / Xylene. All metal and PVC surfaces should be cleaned and abraded before priming.



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### 3 EXPANSION AND MOVEMENT JOINTS

All expansion and movement joints should be sealed with Dr. Fixit Pidiseal PS 41G & 42 P for vertical and horizontal surfaces respectively, as the case may be. When cured, masking tape should be applied to the top surface of the sealant and the joint then coated with a thick application of **Dr. Fixit Flexicoat PU** extending 150mm each side of the tape. Reinforce with polyester glass fiber -40 GSM- 150mm wide strip and allow to cure before general application.

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### 4 CRACKS

All shrinkage and non-moving structural cracks should be pretreated with a coating of **Dr. Fixit Flexicoat PU** extending 75mm either side of the crack. Allow to cure overnight before general application.

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### 5 RIGHT ANGLE BENDS

All right angle bends must have a coving installed. The coving shall be formed with sand & cement and after proper curing it must be covered with one liberal coat of **Dr. Fixit Flexicoat PU**. Whilst still wet, a 150mm wide strip of polyester glass fiber - 40 GSM shall be sandwiched as reinforcement with second coat of **Dr. Fixit Flexicoat PU**.

All other angles, joints, protrusions and stress points should be pretreated with a heavy application of **Dr. Fixit Flexicoat PU** extending 50-100 mm either side of the detail. Reinforcement with polyester glass fiber - 40 GSM is recommended where movement is possible.

Allow pretreatments to cure overnight before general application.

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### 6 APPLICATION

**Dr. Fixit Flexicoat PU** should be applied by brush, trowel, squeegee in two coats maintaining the spreading rate to achieve the desired DFT of 1 mm. The material consumption shall be approximately 0.75 to 0.80 m<sup>2</sup> /ltr per 2 coats.

In critical applications where film thickness is paramount and desired than the stated one then two coats should be applied with quantities per coat gauged to give the specified final film thickness.

On a vertical surface if high film build up is desirable then additional coat may be required.

If a water ponding test is to be run, the membrane should be fully cured.

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### 7 PONDING TEST

Prior to placement of protection, conduct a water ponding test to a minimum depth of 50 mm of water for 24 hours.

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### 8 CURING AND PROTECTIONS

**Dr. Fixit Flexicoat PU** membrane must be cured for a minimum of 72 hours @ 27<sup>o</sup> c before placing protection. Where damage to the membrane is possible (by traffic, backfilling, etc) it should be protected by a cementitious screed or protection boards. A dust coat of cement should be used to prevent adhesion of the membrane to the boards. A bond with the topping is not required, a separator sheet should be used.

All exposed areas of **Dr. Fixit Flexicoat PU** should be coated with two coats of aluminum paint.

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### 9 CLEANING

Tools and equipment should be cleaned with - solvents like mineral turpentine or toluene / xylene immediately after use. Do not use the solvent for thinning except where a sealing coat is required.

### Precautions & Limitations

Surface to be dry for application as the material is cured in presence of moisture. Moisture level shall not be essentially more than 0.5%.

Soft settling is likely to be observed in containers and the same shall be stirred thoroughly and carefully to achieve



a homogeneous consistency.

Avoid application on very hot substrate & during a very hot and windy conditions. Film formation may not be uniform and gradual under such circumstances & skinning on top surface may lead to formation of blisters and bubbles due to entrapped vapour from within the material.

The minimum application life (after opening the container) is upto 48 hrs. if stored in tightly closed container.

### Standard Compliance

**Dr. Fixit Flexicoat PU** meets the requirements of ASTM C836-84, & ASTM C898.

### Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Tack free time @ 27° c		15 hrs
Time to full cure @ 27° c		72 hrs(1.3mm)
Viscosity (Brookefield)		60 to 90 PS
% Solids		77 ± 2
Specific Gravity		1.11 to 1.18
Typical membrane properties : (28 days curing)		
Elongation	ASTM D 412	>600 %
Tensile strength	ASTM D 412	1.5 n / mm <sup>2</sup>
Modulus at 100 % elongation	ASTM D 412	0.62 mm <sup>2</sup>
Recovery from 200 %	ASTM D 412	95 %
Shore A hardness	ASTM D 412	30
Accelerated weathering		No alteration in properties
Stability at 70° c		No melting/flowing No peeling observed

### Chemical properties

**Dr. Fixit Flexicoat PU** withstands a range of mild acids, alkalies and water borne salts and is resistant to bio-deterioation.

### Coverage\*

- 0.70 - 0.75 ltr / m<sup>2</sup> per coat @ 600 micron DFT
- 1.40 - 1.50 ltr /m<sup>2</sup> for 2 coats to achieve 1.2 mm DFT

\* Coverage may vary depending upon the nature & texture of the surface.

### Packaging

20 litre epoxy lacquered metal drums

### Shelf Life & Storage

**Dr. Fixit Flexicoat PU** has a shelf life of 12 months if kept below 27° c in the original, unopened packs.



## Health & Safety Precautions

Gloves, goggles and protection gear / overall should be used when handling these products. If contact with the resin occurs it must be removed before it hardens with a resin removing cream, standard grade skin cleanser or industrial skin cleanser. Follow by washing with soap and plenty of water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical advice. Ensure adequate ventilation when using resin and solvent containing materials.

**Fire - Dr. Fixit Flexicoat PU** contain flammable solvents. Do not use near an open flame or smoke during use.

Keep out of reach of children .

## Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals



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