

Dr. Fixit FlexiPU 500 GC



A SINGLE COMPONENT, LIQUID APPLIED, MODIFIED URETHANE/POLYUREA ELASTOMERIC WATERPROOFING MEMBRANE FOR DAMP/GREEN CONCRETE.

Description

Dr. Fixit FlexiPU 500 GC is a seamless and joint free waterproofing system created from a single component, moisture triggered liquid applied, coal tar free, urethane/polyurea roofing and waterproofing membrane system for vertical and horizontal surfaces specially where high moisture content in concrete is anticipated. The system can be applied in horizontal and vertical surfaces using roller, squeeze or spray method as per site requirements.

Standard compliance / Specification

Dr. Fixit FlexiPU 500 GC meets the requirements of ASTM C836.

Typical Applications

- Unconfined retaining walls
- Roof & Podium
- Wet areas
- Landscape areas

Features

- Moisture Insensitive
- Can be applied to wet concrete after 24 hrs of casting/de-shuttering
- Single component
- Can achieve 1.5 mm DFT in 2 coats on vertical surfaces
- Primerless system
- Can be applied by roller, squeeze or spray
- Suitable for vertical and horizontal substrates
- Root Resistance
- Dynamic Crack Bridging ability
- High tensile & tear strength

Method of Application

1 SURFACE PREPARATION

- Concrete substrate should be sound. Any loose cement slurry, concrete flakes, curing compound, dust etc. needs to be removed by a suitable mechanical surface preparation method to achieve CSP 3 profile. Possible surface irregularities need to be repaired.

2 TREATMENT OF JOINTS AND CRACKS

- Apply a strip coat using Dr. Fixit FlexiPU 500 GC with chopped glass fiber strands in 100 mm width for cracks wider than 1.0 mm width after application of Dr. Fixit PU Sealant.

3 APPLICATION OF WATERPROOFING COATING

- Before application Dr. Fixit FlexiPU 500GC should be thoroughly stirred using mechanical mixer at slow speed to ensure a homogeneous material. Take care not to allow entrapment of air into the material. Do not mix in an up and down motion.
- Dr. Fixit FlexiPU 500GC can be applied at 1.5-2.0 mm thickness reinforced with 225 gsm chopped glass fiber stand.
- Apply the first coat of Dr. Fixit FlexiPU 500GC on prepared surface using suitable roller or airless spray consumption @ 0.8-0.9 kg/m².
- While 1st coat is still wet install 225 gsm chopped glass fiber strand and roll to saturate in coating to ensure wrinkle and air pocket free finish.
- Allow the first coat to dry for 16-24 hrs @ 24°C temperature and 50 % relative humidity.



- Apply the second coat in perpendicular direction using suitable roller or airless spray machine coverage @ 0.5-.6 kg/m².
- Allow coating to dry for min 48 hrs before commencing successive activity.

Note : To accelerate curing in low temperature or low humidity water can be added by 2.5-5 % by volume.

6 SPRAY MACHINE

- Single Component Spray Machine
- Pressure:5000 psi
- Tip: 0.033 to 0.035 inch

7 PROTECTION OF WATERPROOFING MEMBRANE

Horozontal surface

- Loosely lay minimum 100 gm/m² geotextile over cured Dr. Fixit FlexiPU 500GC as separation layer, before concrete screed is laid. Protect the liquid applied membrane in maximum 10 days of application using M20 grade concrete screed modified with polypropelyne fibers in 1:100 slope or with any other suitable means to protect the membrane from extended UV exposure and/or from mechanical damages and fill the saw cut joints using Dr.Fixit PU Sealant.
- Angle fillet must be provided while screed application using polymer modified mortar at all junctions. Control joints shall be provided along the length and breadth of entire screed area by using a saw cutting machine within 18-24 Hours of application of screed. The panel size of 3.25 m x 3.25 m is recommended with a maximum panel size of 15 m², or as specified. All joints to be filled with Dr. Fixit PU sealant or any other elastomeric material.

Vertical surface - Unconfined Retaining walls

- The membrane shall be protected after 48 hrs of curing installing a tough, weather, warp and rot proof protection board after application from damage, due to ongoing site activities or from sharp aggregates during backfilling.

Precautions & Limitations

- Do not apply coating while there is standing or flowing water over substrate
- Do not apply over any kind of existing coating/curing compound.
- Not recommended for water retaining structures.
- Material should be strictly recommended for use as mentioned in typical applications.

Technical Information

Test Parameter	Test Method/condition	Unit	Typical Value
Colour	Visual Inspection	-	Black
Specific Gravity/Density (27±2 °C)	IS-101	g/cc	1.18 ± 0.3
Solid Content (by weight)	ASTM D 2369	%	89 ± 3 %
Full curing at 24°C	Visual Inspection	Days	7 days
VOC	IS 101	g/l	< 100
Tensile Strength - Plain film	ASTM D412	N/mm ²	2.0
Tensile Strength with 225 gsm chopped glass fiber strand	ASTM D412	N/mm ²	7.0
Elongation-Plain Film	ASTM D412	%	450 ± 50
Puncture Resistance with 225 gsm chopped glass fiber strand	ASTM E154	N	600
Root Resistance	CEN/TS 14416		Pass
Shore A Hardness	ASTM D2240	-	30



Tear Resistance with 225 gsm chopped glass fiber strand	ASTM D624	N/mm	60
Pull off adhesion (Plain film)	ASTM D7234	N/mm ²	> 1.0
Pull off Adhesion (with glass fiber strand)	ASTM D7234	N/mm ²	> 0.5
Service Temperature	Visual Inspection	-	- 30°C to 65°C
Dynamic Crack Bridging Ability	EN 1062-7, Method B, Class B 4.2		Pass
Resistance to Hydrostatic Head upto 7 Bar	ASTM D5385		Pass

Note:

Mechanical properties are derived from testing of Dr. Fixit FlexiPU 500GC applied as per recommended application method in controlled laboratory environment after completion of 14 days of curing. Test results achieved from testing of site-applied samples may vary by 5-7 % depending on circumstances beyond our control such as variation in sample preparation, variation of UTM machine, rate of loading, manual errors, atmospheric conditions, curing conditions & film thickness etc.

Packaging :

18.9 Ltr (22.5 kg) Drum

Dr. Fixit FlexiPU 500GC is supplied in Black color.

Theoretical Coverage :

For 1.5 mm DFT typical consumption shall be 1.4-1.45 kg/m² in 2 coats.

Shelf Life & Storage

- Pails should be stored in dry and cool rooms for up to 12 months. Protect the material against moisture and direct sunlight. Storage temperature: 8°C-35°C

Health & Safety

- During application wear protective clothing, gloves and eye goggles during application. Avoid product to contact eyes and skin.
- Skin Contact - Wash immediately with plenty of clean water.
- Eye contact - In the event of eye contact splash plenty of clean water immediately and seek medical advice.

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals



Pidilite Industries Limited
 Construction Chemicals Division
 Ramkrishna Mandir Road, Post Box No. 17411
 Andheri (E) Mumbai 400059 INDIA
 Tel +91-22-2835 7000 • Fax +91-22-2835 7008
 www.drfixit.co.in • info.drfixit@pidilite.com
 Dr. Fixit Advice Centre (Toll Free No.) 1800 209 5504

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.