

Dr. Fixit Superseal 4500 PUH



TWO-COMPONENT SPRAY APPLIED INSTANT SETTING LIQUID HYBRID
POLYUREA POLYURETHANE BASED ELASTOMERIC WATERPROOFING MEMBRANE

Description

Dr. Fixit Superseal 4500 PUH is a two-component, sprayable, 100% solids (VOC free), instant setting hybrid polyurea waterproofing membrane suitable for waterproofing, and protection to structural concrete membrane. Dr. Fixit Superseal 4500 PUH consists of two main components i.e. Part A ISO and Part B AMINE. Dr. Fixit Superseal 4500PUH to be applied using specific spray equipment, to form an aromatic, seamless high performance waterproofing membrane for long lasting performance.

Standard Compliance/Specification

Dr. Fixit Superseal 4500PUH meets the requirements of ASTM C836.

Areas of Applications

- Podium & Roof terraces
- Balcony - Decks and Parking slabs
- Unconfined Retaining walls
- Cut and cover Tunnels
- Sloping roofs
- Green roofs
- Over Polyurethane Foams
- Waterbodies and Swimming Pools

Features & Benefits

- Develops stronger bond with substrates
- Fast setting within seconds.
- Excellent toughness and flexibility.
- Excellent abrasion and puncture resistance
- Excellent crack bridging ability
- Environment friendly-zero VOC
- Quick turn around time

Method of Application

SURFACE PREPARATION

- Concrete substrate compressive strength should be minimum 25 MPa.
- New concrete surface needs to cure for atleast 28 days and moisture content should be less than 8 %.
- Concrete slurry, existing coatings, dirt, fats, oils, organic substances etc. need to remove by suitable grinding machine.
- Possible surface irregularities need to be smoothened.
- Careful surface preparation is essential for attaining the optimum properties. Prepare concrete surface profile of CSP-3 to CSP- 5 to achieve minimum roughness of 75-100 microns suitable for the liquid applied coatings of 1.5 mm thickness.

TREATMENT OF CRACKS

- Cracks on the substrate (wider than 1 mm) required to be open in V-groove manner (5mm x 10 mm size) by using mechanical cutter, clean the same and seal with the Dr. Fixit Polyurethane sealant before overcoating with waterproofing membrane.

PRIMING

- On prepared concrete surface apply Dr. Fixit Cipoxy 16D primer. Apply the primer in one coat as per the application guideline and coverage @ 5-6 m²/ltr. Allow the primer to cure for 4-6 hours.



- Recommended to broadcast anti slip grains of 200-300 micron thickness (Dry Sand without any moisture/dust/dirt etc.) on wet primer at coverage of 0.8-1.0 kg/m² and allow the same to become touch dry. Remove unstuck or loose grains and continue to spray Dr. Fixit Superseal 4500 PUH for optimum adhesion property.

Note : If concrete surface found to be defective with pinholes/bug roles/honeycombs etc., it must be filled/ repaired using scratch coat (prepare scratch coat by mixing Dr. Fixit Cipoxy 16D primer and Dr. Fixit Superseal P100 aggregates in 1:1 ratio). Apply the scratch coat by using suitable spatula/squeeze to get level surface for the upcoming primer.

- Apply Dr. Fixit Superseal 4500 PUH when the primer is tack free or before 24 hours from application of primer. In case if it exceeds 24 hours, then a thin coat of primer is recommended.

PRIMER ON METAL SURFACE

- All metal surfaces should be grit blasted to obtain minimum Sa 2.0 to 2^{1/2} surface finish . If blasting is not practically possible, make full use of power tools to remove loose rust and scale to Sa.2.0 standard. The surface should be dry, free from dust, grease and loose particles. After surface preparation immediately apply primer coverage @ 150 ml/m² and allow the same to become tack free before application of successive coating.

WATERPROOFING MEMBRANE APPLICATION REQUIREMENTS (SPRAY EQUIPMENT)

- Dr. Fixit Superseal 4500 PUH must be applied utilizing a high pressure plural component pump such as Graco EXP2 or similar reactor equipped with a gun.
- The application equipment must be capable to have the capacity to continuously maintain high temperature and high pressure. Low pressures or temperatures can result in poor mixing of product and subsequent failure of the coating films.

Processing Parameters

Block temperature (Part A & Part B)	+70°C to +80°C
Hose temperature	+70°C to +80°C
Mixing ratio (by Volume)	1:1
Pressure	120-150 Bar

SPRAY APPLICATION

- Dr. Fixit Superseal 4500 PUH waterproofing membrane to be applied to form a minimum system thickness of 1.5mm in two or more passes in both directions.
- Mixed material to be sprayed coverage @ 1.6 kg/Sqmt to achieve 1.5 mm dry film thickness.

PROTECTION SCREED

- Protect the waterproofing membrane within 10 days of completion to eliminate chances of discoloration or any physical damage.
- Non-woven geotextile membrane of min 100 gm/m² should be laid over cured Dr. Fixit Superseal4500 PUH as a separation layer.
- Concrete screed of min M 20 grade with 1:100 slope should be laid.
- Fill the screed saw cut joints using Dr. Fixit PU Sealant

COLOUR STABLE TOP COAT

- Dr. Fixit Superseal 4500PUH is not a permanently colour stable system. Apply Dr. Fixit Superseal TC1000 Ultra - UV and weather resistance polyaspartic protective coating to achieve colour stability.
- Dr. Fixit Superseal TC 1000 Ultra to be applied to clean polyurea surface after application of Dr. Fixit Cipoxy 16D primer.

Refer Dr. Fixit Superseal TC 1000 Ultra technical datasheet for further details.

Precautions & Limitations

- This product is for professional use only for specific areas mentioned in TDS.
- Avoid moisture contamination in containers.
- Application should not be planned if forecast indicates possible rains in next 36 to 48 hours.
- If application of coating is intended or anticipated other than concrete and Foam surfaces, contact Pidilite technical team.

Technical Information

Properties	Units	Results	Test Standard
Viscosity	cps	Part A : 850 +/- 350 Part B : 600 +/- 200	Brookefeild Viscometer
Solid Content (Zero VOC)	%	100	ASTM D 2369
Density at 23°C	g/cc	Mixed : 1.06 +/- 0.1 Part A : 1.09 +/- 0.1 Part B : 1.03 +/- 0.1	ASTM D 4669
Gel Time	Sec	10-15	
Tack free time at 23°C	Min	1	
Cured time at 23°C	hours	24	
Tensile Strength at 23°C	MPa	15	ASTM D 412
Elongation at break at 23°C	%	450	ASTM D 412
Tear Strength	kn/m	60	ASTM D1004/ASTM D624
Adhesion (on concrete)	MPa	2	ASTM D 4541
Abrasion resistance (1 Kg,CS 10 Wheels,1000 cycles)	mg	60 loss	ASTM D 4060
Shore A Hardness	-	85	ASTM D2240
Resistance to hydrostatic water pressure	Bar	7	ASTM D 5385/ DIN 16726
Puncture Resistance	N	1000	ASTM E 154
Water vapour permeability	mg/m ² /day	25	ASTM E 96
Impact resistance	N.m	17	ASTM D 2794
Service Range temperature	°C	- 20 to 90	
Low Temperature crack bridging ability	mm	3.2 mm	ASTM C1305
Resistance to root	-	Pass	CEN TS/14416
Fire Resistance	-	Pass	EN 13501-1,Class B

Note: The typical physical properties given above are derived from independent verified testing in accordance with Pidilite's Dr. Fixit Superseal 4500 PUH Method Statement in controlled laboratory environment and tested after a minimum of 14 days cure.

Results derived from testing of field-applied samples may vary dependent on circumstances beyond our control such as the type and condition of equipment used, static and dynamic working pressures, application temperatures and weather conditions, film thickness, test and curing conditions and age of samples tested.

Recommended Coverage

For 1.5 mm DFT typical consumption shall be 1.6 kg/sqmt.



Packaging

420 Kg Metal Drum Set (Part A : 220 Kg, Part B : 200 Kg)

Shelf Life

The shelf life is 12 months if stored as per the recommendations. In a covered and secured storage space. Excessive exposure to sunlight, UV rays and other source of heat will result in considerable deterioration of the product and reduce its shelf life.

Health and Safety

These safety recommendations for handling, are necessary for the implementation process as well as in the pre and post, on exposure to the loading machinery. During application wear protective clothing, gloves and eye goggles during application. Avoid product to contact eyes and skin.

- Respiratory Protection: When handling or spraying use an air-purifying respirator.
- 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.
- Waste: Waste generation should be avoided or minimized. Incinerate under controlled conditions in accordance with local laws and national regulations.
- Vapor and atomized liquids are harmful. Use only in ventilated areas, wear approved respirators when necessary.
- Keep out of reach of children.
- Do not use near high heat or open flame.

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals



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