Dr. Fixit Superseal 900

TWO-COMPONENT LIQUID APPLIED HYBRID POLYUREA POLYURETHANE WATERPROOFING MEMBRANE

Description

Dr. Fixit Superseal 900 is a premium, liquid-applied, highly elastomeric, two components, Polyurea polyurethane hybrid membrane, applied by brush, roller or spray and specifically used for long-lasting waterproofing protection.

Dr. Fixit Superseal 900 is based on pure elastomeric PU-Polyurea hybrid resins, which result in excellent mechanical, chemical & physical properties.

Standard Compliance / Specification

Dr.Fixit Superseal 900 meets the requirements of ASTM C836.

Areas of Application

- Podium
- Balcony - Decks and Parking slabs
- Roofs - Terraces
- Cut and cover Tunnels UG Metro stations

Features & Benefits

- Simple application by brush,roller or spray.
- Seamless membrane without joints.
- Excellent puncture resistance.
- Dynamic crack bridging ability.
- Root resistant.
- Cold application hence application friendly.

Method of Application

1 SURFACE PREPARATION

- Concrete substrate compressive strength should be at least 25 MPa, New concrete surfaces needs to cure for atleast 28 days and with residual moisture content < 8 %. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a suitable mechanical surface preparation methods to achieve CSP 3 profile.. Possible surface irregularities need to be repaired. Any loose surface pieces and grinding dust need to be thoroughly removed.

2 TREATMENT OF CRACKS & CONSTRUCTION JOINTS

- Cracks on the substrate (wider than 1 mm) required to be open in V-groove manner (5mm x 10mm size) by using mechanical cutter, clean the same and seal with the Feviseal HY 300 sealant before overcoating with waterproofing membrane.
- It is recommended to carry out 100 mm wide strip coating over treated cracks and construction joints using 60 gsm geotextile sandwitched between 2 coats of Dr.Fixit Superseal 900.

3 APPLICATION OF PRIMER

- Mix base and hardener components in 1:1 by volumetric ratio of Dr.Fixit Cipoxy 16D using slow speed drill (100-300 rpm) fitted with mixing paddle for 2-3 mins to achieve homogeneous mix. Apply the mixed material using suitable brush/roller on prepared concrete surface coverage @ 150-200 ml/m^2 as per application guidelines. **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 200 mesh silica flour 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 900 once the primer becomes tack free approx. after 3-4 hrs or before 24 hrs after application of primer. In case, if time exceeds 24 hrs, then a thin coat consumption @ 50-75 ml/m2 of Dr. Fixit Cipoxy 16D is recommended to apply.

4 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/m^2 and allow the same to become tack free before application of sucessive coating.

5 WATERPROOFING MEMBRANE

- Being high solids product soft settlement is expected for Part B upon storage, hence it is suggested to mix Part B for 2 minutes before pouring Part A. Pour part A into part B and mix properly for 3 minutes to get a homogenous solution.
- Use slow speed (100-300 RPM) paddle mixer for mixing the components.
- Apply the first coat of Dr. Fixit Superseal 900 on horizontal surface using suitable brush, roller or spray coverage @ 1.0 kg/m^2.
- Use spike roller to dislodge the entrapped air if any.
- Apply second coat in perpendicular direction after minimum 6 hrs of completion of first coat coverage @ 1.0 kg/m^2 followed by spike rolling.
- Total thickness of coating on horizontal surface should be minimum 1.5 mm in 2 coats and maximum thickness upto 3.0 mm can be built up in multiple coats.
- Dr. Fixit Superseal 900 can be sprayed using 2 component variable ratio machine equipped with airless gun.

Processing Parameters

Block Temperature (A&B)	+ 55 °C to + 65 °C
Mixing ratio by volume	2.2 : 1
Pressure	3000 psi / 210 bar
Nozzle Size	0.031-0.033 inch

6 PROTECTION SCREED

- Loosely lay minimum 100 gm/m^2 geotextile over cured Dr. Fixit Superseal 900 as separation layer, before concrete screed modified with polypropelyne fiber is laid. Protect the liquid applied membrane in maximum 10 days of application using M20 grade concrete screed 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.

7 COLOUR STABLE TOP COAT

- Dr. Fixit Superseal 900 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 cleaned polyurea surface after application of Dr. Fixit Cipoxy 16D primer.
  Refer Dr. Fixit Superseal TC 1000 Ultra technical datasheet for further details.

Precautions & Limitations

- Dr.Fixit Superseal 900 is not recommended for application on vertical surfaces like unconfined retaining walls, potable water tanks etc.
- Do not wash concrete surface with water before starting waterproofing application.

- For best results, the temperature during application should be between 10ºC and 35ºC. Low temperatures retard cure while high temperature accelerate curing.
- Pot life will shorten during extreme summer and application needs to be rescheduled in the cooler evenings. .
- Application should not be planned if forecast indicates possible rains in next 36 to 48 hours.
- Care should be taken, that there should not be ingress of water into material from time of mixing to initial drying time of finished product for minimum 7 hours.

Technical Information

TEST PARMETER	TEST METHOD/ CONDITIONS	UNIT	Observed Value
Mix Ratio (Part A : Part B) by weight			10: 6
Physical Form			Light red colored liquid (after mixing)
Specific gravity	@ 25ºC		1.10 ± 0.1
Solid Content	ASTM D 2369	%	82
Application Parameters			
Pot life	@ 30ºC	minutes	20.0
Full Drying Time	@ 30ºC	minutes	4 days
Performance Parameters*	@ 30ºC		
Tensile strength	ASTM D 412	N/mm^2	> 15.0
Elongation	ASTM D 412	%	> 600
Tear strength	ASTM D 624	N/mm	> 42.0
Shore A Hardness	ASTM D 2240		> 70.0
Water absorption	ISO 62	%	< 1.0
Recovery	ASTM D 412	%	> 85.0
Bond Strength to concrete	ASTM D 7234	N/mm^2	> 2.00 (or cohesive failure in substrate)
Dynamic Crack Bridging ability	EN 1062-7,Method B, Class B 4.2	-	Pass
Puncture Resistance	ASTM E 154	N	> 1000
Sensitivity to showers / ingress of water		Hrs	5-6
Resistance to Hydrostatic Head	ASTM D5385	m	> 70

*Mention properties are tested at an average thickness of 1.5 mm.

Note:
Mechanical properties are derived from testing of Dr. Fixit Superseal 900 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 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.

Theoretical Coverage *

- For 1.5 mm DFT typical consumption shall be 2.0 – 2.1 kg/sq.mt.
- To achieve specified properties minimum thickness of dry film should be 1.5 mm.
- This coverage is based on application by Brush onto a smooth primed surface in optimum conditions. Factors like surface conditions, temperature and application method can alter consumption.

Packaging

16 kg Combo Pack (Part A-10 kg & Part B- 6 kg).

Shelf Life & Storage

Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 8ºC–35ºC. Products should remain in their original, unopened containers, bearing the manufacturers name, product description, batch number and application precaution labels.

Health & Safety Precautions

- 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.

Dr. Fixit Superseal 900 contains isocyanates. See information supplied by the manufacturer. Please study the Material Safety Data Sheet.

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals

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