Dr. Fixit Superseal 900

HYBRID POLYUREA POLYURETHANE, LIQUID APPLIED
ELASTOMERIC 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.

Typical Applications

- Podium
- Balcony - Decks and Parking slabs (covered with suitable screed/ finishes)
- Roofs - Terraces
- Retaining walls, Foundations, UG Structures
- Cut and cover Tunnels UG Metro stations
- Waste water tanks, Marine Structures or Effluent Treatment plants, Chemical storage tank & De-salination tank .

Features

- Simple application by Brush, Roller, Airless Spray.
- Seamless membrane without joints.
- Resistant to water
- Resistant to puncture.
- Crack-bridging.
- Provides excellent adhesion to a wide range of surfaces.
- Resistant to detergents, oils, seawater and domestic chemicals.
- Easily repairable locally, without worrying about over coating period.
- No need of heating, equipment or open flame (no torch application) during application, since it is cold applied and hence safe to use and environment friendly.

Packaging

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

Dr. Fixit Superseal-900 is supplied in light red colour.

Method of Application

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. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.
- 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.

2 TREATMENT OF CRACKS

- Careful treatment of concrete cracks before the application is extremely important for long lasting waterproofing results.
- Cracks wider than 0.5 mm to be treated with epoxy putty. Cut open the crack in V-groove manner in 5 mm size using mechanical cutter and clean the same to remove dust,dirt etc. Make Epoxy putty/mortar by mixing Dr. Fixit Superseal P110 (R+H) and Dr. Fixit Superseal P100 aggregates (1:1 ratio) and fill the same in cracks, cavities, undulations and bug holes and allow to dry completely. For larger undulations, use coarser aggregates along with Dr. Fixit Superseal P 100 aggregates.
- For the cracks visible on the concrete surface which are less than 500 microns width, needs to be cleaned and treated with 2 coats of Dr. Fixit Superseal P100 WB primer in 100 mm width on either side of the cracks and allow the same to cure before application of scratch coat
- Fill all prepared moving cracks with Dr. Fixit PU sealant.

3 APPLICATION OF PRIMER

- Mix base and hardener components of Dr.Fixit Superseal P110 using peddle/drill mixer with slow speed until a homogenous mix. Apply the fresh mix using suitable brush/roller on prepared concrete surface coverage @ 200-250 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 Superseal P110 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 900 once the primer becomes tack free or before 24 hrs from application of primer. In case, if time exceeds 24 hrs, then a thin coat of Dr. Fixit Superseal P110 is recommended to apply.

4 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. Apply the mixed solution on the primed surface by using brush, roller or airless spray.
- Use slow speed (100-300 RPM) paddle mixer for mixing the components.
- Apply the coating to horizontal surface in minimum 1.5 mm thickness in 2 coats and maximum thickness should be 3.0 mm in multiple coats. Use spike roller to dislodge the entrapped air if any.
- Apply second coat of Dr. Fixit Superseal 900 in perpendicular direction after minimum 6 hrs of completion of first coat. In case of it exceed 24 hrs it is recommended to apply one coat of primer before overcoating the same.. For vertical walls, two to three coats (0.7 mm WFT per coat) are recommended by brush, roller or airless spray.

5 PROTECTION FOR HORIZONTAL SURFACES

- Spread minimum 100 gm/m^2 geotextile over cured Dr. Fixit Superseal 900 as separation layer, before concrete screed 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.
- To minimize shrinkage crack in the screed, it should be reinforced with Poly propylene fibre @ 0.9 kg/ m^3 dosage. Sprinkle the fibre in site mixer with little water. Keep rotating and add aggregate, sand, cement and balance water. Mix it for a few minutes. In case of manual mixing, for best results mix half the fibre in a bucket of water, stir well and mix in concrete. Likewise add balance fibre. Angle fillet to be provided while screed application using polymer modified mortar.
- After the application of screed, provide control joints along the length and breadth of entire screed area.
- The joint can be provided by using a saw cutting machine attached with a 6 mm x 30 mm bladeblade within 18-24 hrs of application of screed. The panel size for providing joints should be upto max 15 sqm.
- 28-30 days later, these joints can be filled with a Dr.Fixit PU Sealant - Elastomeric Sealant.

Note:

- Do not wash concrete surface with water before starting waterproofing application.
- For best results, the temperature during application should be between 10°C and 35°C. 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.

Precautions & Limitations

- Careful supervision during application is needed, particularly in ensuring proper consumption of material to achieve the desired average thickness.
- Use of spike Roller to remove the air which being entrapped while mixing of the product.
- Always protect the coating with proper and appropriate protection method.
- Dr. Fixit Superseal 900 is not designed to be left exposed to UV for more than 10 days after completion of top coat. For exposed application apply suitable top coat as per recommended coverage. Contact Pidilite Technical services for the same.
- 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	@ 25°C		1.10 ± 0.1
Solid Content	ASTM D 2369	%	82
Application Parameters			
Pot life	@ 25°C	minutes	25.0
Pot life	@ 30°C	minutes	20.0
Performance Parameters*	@ 30°C		
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)
Crack bridging displacement	ASTM C 1305	mm	> 2.0
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.

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.

Shelf Life

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 and 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.

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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