

Dr. Fixit Superseal 500



2 COMPONENT HIGH BUILD LIQUID APPLIED ELASTOMERIC POLYURETHANE POLYUREA HYBRID WATERPROOFING MEMBRANE

Description

Dr. Fixit Superseal 500 premium high solids high build liquid cold applied elastomeric two component polyurethane polyurea hybrid membrane used for long-lasting waterproofing solution.

Standard Compliance

Dr. Fixit Superseal 500 meets the requirements of ASTM C836.

Typical Applications

- Podium
- Balconies
- Roofs - Terraces
- Car Park Decks

Features

- Simple application by Brush, Roller or Spray.
- Seamless membrane without joints.
- Dynamic crack bridging ability.
- Excellent Mechanical Properties.
- Tested for 25 yrs of service life.

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.

2 TREATMENT OF CRACKS & CONSTRUCTION JOINTS

- Cracks on the substrate (wider than 1 mm) required to be open in V-groove manner (5 mm x 10 mm size) by using mechanical cutter, clean the same and seal with 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 sandwiched between 2 coats of Dr.Fixit Superseal 500.

3 APPLICATION OF PRIMER

- On prepared concrete surface it is recommended to apply Dr. Fixit Aquaseal Primer / Dr. Fixit Cipoxy 16D.
- Dr. Fixit Aquaseal Primer to be mixed for 2-3 mins in ratio of 2.5:1 (Base to Hardener) by volume. After mixing add 1 part of water and again mix before application or
- Dr.Fixit Cipoxy 16D primer to be mixed in 1:1 ratio by volume for min 3 minutes before using.
- Apply the primer in one coat as per the application guideline consumption @ 150-200 ml/m². Allow the primer to cure for 3-4 hrs. Consumption of primer may vary depending upon substrate porosity.
- Apply Dr. Fixit Superseal 500 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.

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 Dr.Fixit Cipoxy 16D - epoxy primer coverage @ 6-7 m²/ltr and allow the same to become tack free before application of successive coating.

5 WATERPROOFING MEMBRANE

- Both the components of Dr. Fixit Superseal 500 should be stirred well before using. Pour Part A and Part B into clean container and mix using peddle/drill mixer with slow speed (100-300 rpm) for 3 mins to get homogenous mix.
- Spread mixed material on horizontal area and levelled using notched trowel coverage @ 2.0 - 2.1 kg/m² to achieve total DFT of 1.5 mm.
- Use spike roller to dislodge the entrapped air if any.
- On vertical surface, application shall be carried out using scrapper in max 400 microns DFT/Coat coverage @ 0.65-0.7 kg/m²/coat. Allow the first coat to become tacky for approx. 3-4 hrs depending upon ambient temperature before carry out 2nd coat. Total 3-4 coats application to be carried out on vertical surface to achieve 1.5 mm SPRAY APPLICATION
- Dr. Fixit Superseal 500 can be sprayed using 2 component variable ratio machine equipped with airless gun.

Processing Parameters

Block Temperature (Part A & B)	+65°C to +75°
Mixing ratio by volume	1:1.4
Pressure	4000 psi / 275 bar
Nozzle Size	0.033-0.037 inch

Note : The application equipment must deliver above mentioned processing parameters to achieve consistent results.

- Water ponding shall be carried out after 4 days of completion of PU coating. Duration of ponding should not be more than 48 hrs.
- Allow the material to cure for minimum 7 days before laying protection screed.

6 PROTECTION FOR HORIZONTAL SURFACES

- Loosely lay minimum 100 gm/m² geotextile over cured Dr. Fixit Superseal 500 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 polypropylene 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.

7 UV STABLE TOP COAT

- Dr. Fixit Superseal 500 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 coating surface after application of Dr. Fixit Cipoxy 16D primer.
- Refer Dr. Fixit Superseal TC 1000 Ultra technical datasheet for further details.

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

- Always protect the coating with proper and appropriate protection method.
- Dr. Fixit Superseal 500 is not designed to be left exposed to UV for more than 10 days after completion of top coat.
- Application should not be planned if forecast indicates possible rains in next 36 to 48 hours.
- Care should be taken, there should not be ingress of water into material from time of mixing to initial drying time of finished product for minimum 6-7 hrs.
- Do not try to use solvent such as xylene/thinner to dilute the coating.
- Dr. Fixit Superseal 500 is not recommended for application over retaining walls.

Technical Information

TEST PARAMETER	TEST METHOD/ CONDITIONS	UNIT	Typical Value
Physical Form	Visual Inspection		Rusty Red coloured liquid (after mixing)
Mixed Density	@ 25°C		1.33 +/- 0.1 g/cc
Solid Content	ASTM D 2369	%	> 98
Working Time	@ 25°C	mins	25-30 mins
Tack free time	@ 25°C	hrs	< 4 hrs
Full Drying Time	@ 25°C	hrs	< 24 hrs
Tensile Strength: No Treatment	ASTM D 412	Mpa	≥ 6
Tensile strength retention rate: After heat treatment		%	≥ 100
Tensile strength retention rate: After alkali treatment		%	≥ 70
Tensile strength retention rate: After acid treatment		%	≥ 80
Elongation: No treatment	ASTM D 412	%	≥ 600
Elongation: After heat treatment		%	≥ 600
Elongation: After alkali treatment		%	≥ 600
Elongation: After acid treatment		%	≥ 600
Tear strength	ASTM D 624	N/mm	> 35
Shore A Hardness	ASTM D 2240		> 70
Bond Strength to concrete	ASTM D 4541	N/mm ²	> 1.5
Crack bridging (Static)	EN 1062-7	mm	> 3.5
Dynamic Crack Bridging Ability	EN 1062-7, Method B, Class B4.2	-	Pass
Puncture Resistance	ASTM E154	N	> 300
Recovery	ASTM D412	%	> 85
Resistance to Hydrostatic Head @ 7 bar	EN 12390-8	-	No leakage
Resistance to Root	CEN TS/14416	-	pass
Resistance to Fire	EN 13501 - 1, Class E	-	Pass

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



Note:

Mechanical properties are derived from testing of Dr. Fixit Superseal 500 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.

Packaging

30 kg set (Part A: 10 Kg, Part B: 20 Kg)

Dr. Fixit Superseal 500 is supplied in Rusty Red color.

Theoretical Coverage *

- For 1.5 mm DFT typical consumption shall be 2.0 - 2.1 kg/sqmt.
- To achieve specified properties minimum thickness of dry film should be 1.5 mm.

Shelf Life

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 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

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals



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