

Dr. Fixit Hydrolastic PU

Polyurethane Waterproofing Elastomer



Description

Dr. Fixit Hydrolastic PU is a liquid applied polyurethane waterproofing. It is waterborne with very low solvent. Easily applied, as no mixing is required. Application quality is reliable as is simple. For condition that required high strength flexible film. When dried, Dr. Fixit Hydrolastic PU forms a rubberlike film with that cover cracks and accommodate small vibration and structure movement. It is durable and resists UV. Film strength is high so that no fiber reinforcement is needed.

Areas of Application

- Concrete roof, terrace, deck, and gutter.
- Steel roof and deck.

Rate of uses

* Theoretical consumption without allowance for loss.

Rate of uses				
	Kg/m ²			m ² /pails (25 kg)
	Standard	At least	At most	
1 coat	0.95	0.93	0.97	26
2 coats	0.95	0.93	0.97	26
3 coats	0.95	0.93	0.97	26
Total 3 coats	2.84	2.79	2.89	8

Thickness

Thickness (micron)			
	Standard	At least	At most
1 coat	333	316	350
2 coats	333	316	350
3 coats	333	316	350
Total 3 coats	1,000	950	1,050

Method of Application

1 Surface Preparation

1.1 Fresh Concrete Surface

- Allow fresh concrete to cure 28 days
- Concrete surface must clean, strong, free of all loose dirty materials, and dust free, oil stain, wax, liquid coating/paint, concrete curing agent, grease or other stains that would affect waterproof coating adhesion.

1.2 Old Concrete Surface

- Concrete surface where there laitance, algae, mound, remove them with grinding machine and clean surface afterwards.

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- Prepare cement surface or mineral mix cement surface by cleaning by using grinding machine or chipping machine to remove all defect surfaces such as peel off surface, weak concrete, cavities, etc.

Surface Levelling

- Surface must be smooth, for laitance remove laitance surface by saw concrete or scrubbing down with wire brush
- Adjust slope 1:100 on roof terrace application to allow water to drain.
- All substrate area must be smooth and any defects concrete surface can be apply by use structure repair cementitious mortar **Dr.Fixit UniRepair FC** to fill in damage area, afterwards allow repair area to cure for 7 days prior to other work.

Repair Cracks & Plug Holes

- For concrete surface with, weak concrete, peel off surface, hollow sound check from knock at concrete condition remove by grinding machine or chipping machine till reaching strong concrete.
- For concrete surface with pinhole or honeycomb can be apply by using structural repair cementitious mortar **Dr.Fixit UniRepair FC** to fill in defects area, afterwards allow repair area to cure for 7 days prior to other work.

For concrete surface with >3mm crack, groove U shape on crack area to big enough for apply **Dr. Fixit MS 25 Sealant** to seal crack and allow to cure a day prior to working on area

Fillet on joints wall and floor

- For concrete wall and floor should be made fillet/chamfer with **Dr. Fixit MS 25 Sealant**. Allow sealant to cure for a day prior to other work.
- Any corners or angles should be cut.
- Floor drain area or drainage cell should be seal joints in between drain and surface with **Dr. Fixit MS 25 Sealant**.

2. Priming

- Concrete surface moisture level must not exceed 5%. if exceeded or there is high porous surface recommend use **Dr.Fixit Denzi Block** and leave coat to dry completely 1-2 hours before apply second coat and allow the coating to cure for 24 hours.

3. Mixing

- **Dr.Fixit Hydrolastic PU** is premix product; stir content till a homogenous paste is form prior to applying. Can apply concrete drill mixer to stir at low speed within 1-2 minutes. Do not add more water when mixing.

4. Applications

Waterproof Application

- Paint/spray 1st coat of **Dr.Fixit Hydrolastic PU** at 2.84 kg/sqm (dry film thickness 1,000 micron)
- Allow 1st coat to dry 1 to 2 hours prior to applying 2nd coat perpendicularly, do not add more water in mixture when applying
- When applying floor to wall joint apply **Dr.Fixit Hydrolastic PU** at least 30 cm height above floor level.

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- Recommend spray **Dr.Fixit Hydrolastic PU** with **Dr.Fixit Dutymax Airless Sprayer**

5. Cleaning

- Clean all tool and equipment with water immediately after use.

6. Curing and Protection

- Allow **Dr.Fixit Hydrolastic PU** to cure 7 days after applying application steps above prior to opening to traffic

Precautions & Limitations

- Dr.Fixit **Hydrolastic PU** working temperature 10 to 35°C
- Dr.Fixit **Hydrolastic PU** should not be apply directly under sunny weather on hot surface, recommend for application in Thailand to apply prior to 10am or during evenings
- Dr.Fixit **Hydrolastic PU** should not be apply on area of negative water pressure such as area where water seep through from concrete foundation
- Dr.Fixit **Hydrolastic PU** should not be apply area that regular is immerse in water such as water tank and swimming pool

Technical Information

Properties	Standards	Results
1.Appearance	-	Liquid
2.Solid Content by weight	-	Min 70 + 2%
3.Solid Volume	-	51%
4.Viscosity	(KU)	105-120 KU
5.Specific Gravity	ASTM D-70-03	1.41-1.51 g/ml
6.Touch Dry	ISO1517-1973	~ 30 minute
7.Adhesion	ASTM D-4541	2.65 Newton/mm2
8.pH	-	~8.5
9.Mandrel Bend Test	ASTM D-522	No Break, No Change
10.Water Absorption @ 24 Hours	-	<8.0 %
11.Tensile Strength	ASTM D-412	1.15 MPa
12.Elongation at Break	ASTM D-412	>600 %
13.Hardness Shore A	ASTM D-2240	68.2
14.Water Vapor Transmission Rate	ASTM E-96-00	~26.7 g/m2/day
15.Modulus at 100% Elongation	ASTM D-412	0.95 MPa
16.Recovery at 200% Elongation	ASTM D-412	149.2 %
17.Tear Strength	ASTM D-624	12.75 N/mm

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18.Vibration durability test against earthquake	JIS C 60068-2-59	No water leak after all test.
19.Intensity level of earthquake	JIS C 60068-2-59	Upper 6
20.(Solar Reflectance)	JIS R3106	85.2%
21.(Solar Absorptance)	JIS R3106	14.8%
22.(Thermal Emittance)	JIS R3106	0.85
23.VOCs Contents	ISO 11890-2:2013	<0.0110 g/ml

Drying and Curing time

Substrate temperature	10 °C	25 °C	30 °C	40 °C
Surface (touch) dry, hrs.	2	1	0.45	0.3
Dry to over coat, minimum, hrs.	4	2	1,30	1
Dried/cured for service, hrs.	8	6	5	4
Thickness Recommend, mm.				
At least	800			
Standard	1000			
At most	1500			

Drying and curing times are determined under controlled temperatures and relative humidity below 60%, and at average of the DFT range for the product.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Dry to over coat, minimum: The recommended shortest time before the next coat can be applied.

Dried/cured for service: Minimum time before the coating can be permanently exposed to the intended environment/medium

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Package

- Pail 25 Kg Color: White, Green, Grey

Storage

- 1 Year Maximum in Shaded Sealed Container

Health & Safety Precautions

- Non-flammable
- Avoid skin and eye contact, in case of contact, rinse with clean water
- Wear protective clothing, gloves and goggles when working

Disclaimer

The product information and the recommendations relating to the application and end-use of Dr.Fixit products, are based on Dr.Fixit's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Dr.Fixit's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Dr.Fixit reserves the right to change the properties of its products without notice, so the company does not assume liability of any legal from this product information.



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