

Dr.Fixit Slab Seal PUB

One component modified Polyurethane-Bitumen Waterproofing material

Description

Dr.Fixit Slab Seal PUB is a flexible, single ingredient waterproofing material. Modified polyurethane bitumen components It then cures and becomes a waterproof membrane. Protects concrete structures from water penetration. while remaining flexible to accommodate structural expansion and contraction. Can be applied on concrete surfaces that are wet. (humidity not more than 25%)

Areas of Application

- Underground structures reinforced concrete tunnel.
- Retaining wall.
- Concrete deck with topcoat.
- Dams, reservoirs.
- Underground parking building.

Rate of uses

* Theoretical consumption without allowance for loss.

Rate of uses at thickness 1mm.				
	Kg/m ²			m ² /20 kg (standard)
	Standard	At Least	At Most	
1 Coat	0.81	0.78	1.2	24.7
2 Coats	0.81	0.78	1.2	24.7
Total 3 Coat	1.62	1.56	2.2	12.3

Thickness

Thickness (micron)			
	Standard	At Least	At Most
1 Coat	504	486	748
2 Coats	504	486	748
Total 3 Coat	1,008	972	1,495

Method of Application

1. Surface Preparation

Old & Fresh Concrete Surface

- Allow fresh concrete to cure 28 days
- Concrete surface must clean, strong, free of all loose dirty materials, dust free, oil stain, wax, liquid coating/paint, concrete curing agent, grease or other stains that would affect waterproof coating adhesion
- Concrete surface where there laitance, algae, mould, remove them with mechanical help and clean surface afterwards

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- Prepare cement surface or mineral mix cement surface by cleaning by using concrete saw or concrete drill to remove all defect surfaces such as peel off surface, weak concrete, cavities, etc. Do not use water to clean surface to prevent accumulation of moisture. Use concrete saw to smoothen surface and remove all loose

Surface Levelling

- Surface must be smooth, for laitance remove laitance surface by saw concrete or scrubbing down with wire brush
- Adjust slope to be if apply slope 1:100 on roof terrace application to allow water to drain and avoid standing water

High Elasticity Waterproof Polyurethane Acrylic

- For areas with standing water remove standing water and moist damage concrete and apply 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 concrete saw or wire brush till reaching strong concrete surface area
- For concrete surface with hole and burrow apply structural 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
- For concrete surface with >3mm crack saw off crack area to a U shape or big enough to apply **Dr. Fixit MS 25 Sealant** to plug crack area and allow to cure a day prior to working on area
- For concrete surface with hairline crack apply **Dr.Fixit Instant Leak Plug** over hairline crack

Apply on various angle joints.

- Grooved surfaces or structural joints. Must be filled with structural joint sealant. or joint filling material, Dr. Fixit MS 25 Sealant (used with Backing Rod or Bond Breaking) or suitable structural joint filling material. Allow the sealant to dry completely for at least 1 day before proceeding with other work.
- Areas that are square or corners. Make a chamfer. Floor and wall joints, create a cornice (Fillet/Chamfer). You can use Dr. Fixit MS 25 Sealant to remove the corners.
- Floor drain area or drainage channel. Fill the joint between the pipe and the surface with Dr. Fixit MS 25 Sealant.

Surface preparation on metal

- Polishing metal surfaces. Free from rust, dirt, oil stains, grease stains, and weld spatter. and free from paint stains or coating residues (Prepare the surface according to SA 2.5 White Blast standards)

2. Priming

- For highly porous concrete surfaces, use Dr. Fixit Hydrolastic PU Seal mixed with Xylene 25% (by weight) and stir until it is evenly mixed. Use to apply foundation on materials with porous surfaces. and can be applied to repair cracked, ivory-patterned surfaces. Leave it to dry for at least 3 hours before continuing with other work.

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3. Mixing

- **Dr.Fixit Slab Seal PUB** is a ready to use product, stir thoroughly to achieve a homogenous mixture. For electric stirrer apply at approx. 300-400 rpm speed for around 1 to 2 minutes. Do not add water.
- After stirring let the product settle in order to let entrapped air escape to avoid air bubble formation.

4. Application

- The surface must be prepared first. Therefore, install **Dr.Fixit Slab Seal PUB** waterproofing with a rubber rake or steel trowel or roller with a rate of 0.81 kg./sq m/round, applied at least 2 times (The total dry film thickness is approximately 1 millimeter or the film thickness when dry is approximately 500-550 microns per 1 coat of application.) Leave it to dry for at least 3-4 hours before scraping or applying the next coat. (Drying of the product depends on the air temperature at the work site at that time)
- Can use a paint brush or roller to apply to corners, along edges, or in areas where a rubber rake or trowel cannot be used. Can be accessed.
- In the case of applying at the joint of the floor and wall, apply **Dr.Fixit Slab Seal PUB** at least 30 cm above the floor.
- Geotextile sheets can be used to cover and protect the surface of **Dr.Fixit Slab Seal PUB** in the case of using it as a waterproofing system that can be poured with cement over the top (Under Screed).
- In the case of scraping or applying to preserve a crack, it should be scraped or applied to a thickness of at least 1.6 mm. and have a lap distance of 10 cm. from the crack on each side.

5. Cleaning

- Clean tools. and equipment with Xylene immediately after the work is completed.

6. Curing and Protection

- Appreciable properties develop within 24–48 hours at 30°C and 50% relative humidity. Protect **Dr.Fixit Slab Seal PUB** from traffic during curing.
- For protection during backfill only, install protection board as soon as possible following cure of **Dr.Fixit Slab Seal PUB**
- The integrity of the cured membrane on a horizontal surface may be verified by damming the entire area and flooding with water to a minimum depth of 2" (51 mm) and allowing the water to stand for 24–48 hours. Visually inspect the bottom surface to check for any water penetration. If repairs are necessary, the area should be drained and allowed to dry before reapplying **Dr.Fixit Slab Seal PUB**. After reapplication, the area should be tested again for membrane integrity.

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7. Limitations & Precautions

- Before working, always wear Safety PPE equipment.
- Apply **Dr.Fixit Slab Seal PUB** when substrate is dry and ambient temperatures are 5 to 40°C.
- Check humidity and dew point. Apply **Dr.Fixit Slab Seal PUB** when surface temperature is at least 5 °C above dew point to prevent droplets of water forming on the surface.
- Do not apply to expose reinforcing bars before concrete topping.
- Do not directly heat containers with flame, stove, hot plate or oven. Use airless spray to get high application rate.
- Patch and fill all voids and deep depressions in surface with appropriate patching material before applying **Dr.Fixit Slab Seal PUB**. Carefully work material over irregular concrete to avoid pinholes.
- Do not leave the package in the sun. for a long period
- Once the packaging is opened, it must be closed tightly. Do not leave the lid open. Because it will cause the product to dry out.
- When pouring out the product for use. Use the product until it's gone. Do not pour back into the packaging. Because the product is already set.

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Technical Information

Properties	Standard/Test Method	Results
1. Density @ 25 °C	ASTM D70-03	1.3 kg/L.
2. Solid Content by weight	SS-133:1987: Appendix D	>/=90%
3. Hardness Shore 00	ASTM D2240-07	82.4
Hardness Shore A		35
4. Tensile Strength (MPa)	ASTM D412-06a	1.26 MPa
Tensile Strength (psi)		183 psi
5. Elongation at Break (%)	ASTM D412-06a	>500%
6. Modulus at 100% elongation (MPa)	ASTM D412-06a	0.63 MPa
Modulus at 100% elongation (psi)		91 psi
7. Water Vapour Transmission Rate	ASTM E-96	28.0 g/m ² .day
8. Crack bridging test	ASTM C1305-16	ผ่าน มากกว่า มิลลิเมตร 3
9. Extensibility after heat aging	ASTM C1522-05	ผ่าน ไม่มีรอยฉีกขาด รอยแตก หรือรูล หลังจากการทดสอบ
10. Adhesion to concrete (MPa) (psi)	ASTM D4541	16.33 MPa 2368 psi
11. Minimum Elastic Recovery	-	90%
12. Swelling in Water	-	0
13. Service Temperature	-	Min -40°C
		Max 49 °C
14. Flashpoint	ASTM D 3278-20	33.0 °C
15. Drying Time Wet film thickness 50 micrometres >Stage of drying-time< Set-to-touch time Tack-free time Hard-dry time Through-dry time >Recoatibility of a coating< Layer 1 350 um at 40 °C, 2 hour Layer 2 350 um at 40 °C, 2 hour Layer 3 350 um at 40 °C, 3 hour 30 minute	ISO 9117-4:2012 (Method A) ISO 16927:2014	1 hour 11 minute 2 hour 43 minute 5 hour 14 minute 6 hour 10 minute No surface defect are observed No surface defect are observed No surface defect are observed

Package : 20 kg.

Storage : Store packaging. Must be stored in a store that is shaded, dry and not wet. The packaging has not yet been opened. Store in the store. It can be stored for approximately 12 months.

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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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