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ELASTO-DECK BT

ELASTOMERIC WATERPROOFING MEMBRANE

DESCRIPTION:

A black, liquid applied single-component moisture-cured polyurethane coating, designed to form a seamless, flexible rubber membrane impervious to moisture.

Type II For vertical and horizontal surfaces

SUGGESTED USES:

- Waterproofing in between concrete slabs such as parking decks, roof decks or courtyard areas.
- Waterproofing inside planter boxes.
- Waterproofing under tile floors. Waterproofing under wet areas including laundry and bathroom floors.
- Tanking under elevated swimming pools. Waterproofing of occupied areas under malls, plazas and promenades.
- Waterproofing below grade exterior walls or foundation and basements or other structures to be backfilled. Protection boards are to be used. Machine and plant rooms floors and walls.
- Emergency water tanks; not potable water.
- Containment of over flow water. Use on vertical and horizontal surfaces. Gutters.

LIMITATIONS:

- Containers that have been opened must be used up within one or two days since it is a moisture-reactive material. It sets up when exposed to air.
- All surfaces must be completely clear and free of foreign matter and dry.

SURFACE PREPARATION:

All surfaces to receive the Elastodeck BT must be clean, dry and structurally stable.

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ELASTODECK BT (cont'd)

TIMBER:

The plywood is specified as:

- Minimum 17.5mm thickness.
- Glued and screw fixed at 150mm centres around the perimeter and 200mm centres within the sheets.
- Unsupported plywood joints are to be fixed using suitable plywood strapping.
- Must be sound and structurally stable.
- CD, H3 treated with CCA water based preservative.
- All fastenings are to be corrosion resistant and countersunk below the plywood surface.
- Joist spacings are to be maximum 600mm.
- To be laid in a brick bond pattern with the fall grain at right angles to the main support. Joists are to be tightly butted.
- Rot resistant 50mm timber angle fillets to be glued and mechanically fastened in all internal corners.
- Indentations, holes, joints etc are to be filled using Nuplex Epoxy Fairing Cream.
- All sharp edges/corners are to be rounded.
- Joints are to be sanded to achieve a uniform finish.
- Dry – 18WME at the time of membrane installation.
- Minimum fall 1.5°.
- Plywood must be coated as soon as possible after installation to prevent plywood delamination.

CONCRETE:

- Shall have a surface which has been mechanically trowelled to AS3610:1995 U3/NZ/3114:1987US finish or better.
- A minimum compressive strength of 20 MPa at 28 days cure.
- A minimum cure time of 28 days. A moisture content less than 18% WME or 75% R.H.
- All falls and levels to be accurately laid into the concrete. Minimum fall 1.5°.
- A surface free of cement laitance or other contaminants and any roughly screeded or floated patches or areas.
- No cure membranes to be used without approval by Nuplex Industries Ltd.
- Remove all loose or unsound areas, contaminants etc including cement laitance, dirt, grease, oil etc by high pressure water cleaning, captive shot blasting, grinding, scabbling, chemically etching/washing etc as appropriate.
- Ensure concrete floor finishes are clean, sound, stable and dry.

Fill unsatisfactory areas, depression, repair damage, defects, hollows etc and create falls as appropriate using Nuplex FLC (Floor Levelling Compound) where required.

**GALVANISED/
STAINLESS
STEEL:**

- Metal flashing must be installed at all locations where the horizontal deck joins a vertical surface and at all deck penetrations.
- Flashing must be nailed 50mm at centres and must be primed with suitable 2 pack vinyl etch primer.
- Reinforce all metal to concrete seams and fixings using glass cloth tape on wet Elastodeck BT.

ELASTODECK BT (cont'd)

OTHER SURFACES: Other surfaces please refer to Nuplex Construction Products Division for specific advise.

CRACKS AND CONTROL JOINTS: Except for non-moving shrinkage cracks, all other cracks and joints must be sealed with Elasto-Thane 230 (a single component moisture-cured sealant).

Note: Do not apply sealant over the concrete surface.
Reinforce all cracks, joints and junctions using **Nuplex Joint-Safe tape**.

Application:

- As long as the substrate is clean and reasonably dry, no primer is required.
- All cracks 1.5mm and over must be routed or saw cut and filled with Elastothane 230..
- At intersections of membrane and vertical walls, columns, pipes and other penetrations, apply the **Nuplex Joint-Safe tape**.
- Apply by airless spray, roller, brush or squeegee. The first coat of Elastodeck BT at a rate of 0.80m²/litre.
- After a 24 hours cure, apply a second coat of Elastodeck BT at the same rate to achieve a total dry film thickness of 1.5mm.
- The wet film thickness of each coat may be checked during application to achieve an overall thickness of 1.5 – 1.5mm.
- All surfaces coated shall be visibly checked to ensure areas have not been missed and all holidays in the film are repaired.

- All coating work shall be subject to inspection at any time to ensure strict compliance with the manufacturer's recommendations. Test areas shall be cut whenever requested by the architect to verify conformance to the specifications. Any unsatisfactory area shall be remedied by the applicator.
- Pond testing. Set temporary dams and plug drains as required, and pond test all horizontal membranes with a minimum 75mm depth of water for not less than 72 hours. Correct leakage and repeat test until watertight.

Applications to receive topcoverings are to have a further application after 24 hours by brush, roller or spray at 0.80m²/litre. While wet the Elastodeck BT is to receive a broadcast of dry 18/36 grit silica sand to full refusal.

NB: Once cured, the un-bound 18/36 must be very aggressively removed by brushing. It is important that all unbonded material is fully removed.

PROTECTION COURSE: Where required install Nuplex protection board on cured

membrane after testing, without delay, so that the period of exposure shall be minimised.

CLEAN UP:

- Use Nuplex Solvent HA for cleaning Elastodeck BT from equipment.
- Thinning is not normally required. Min. turps is a normal solvent

MAINTENANCE:

If Elasto-Deck BT is damaged, it can be repaired by cleaning the surface and recoating it with Elasto-Deck BT.

TECHNICAL DATA

	<i>PROPERTY</i>	<i>TEST METHOD</i>	<i>TYPE I</i>	<i>TYPE II</i>
1.	Viscosity (poise)	Brookfield Viscometer	35± 5	250± 20
2.	Weight per Gallon			
	Pounds		10.00± 0.25	9.12± 0.2
	Kilograms		4.50± 0.1	4.10± 0.1
3.	Percent Solids	ASTM D-2369		
	Weight		85.00%	82.00%
	Volume		78.00%	77.00%
4.	Tackfree time at 77°F (25°C) and 55% R.H.	-	12-16 hours	12-16 hours
5.	Recoat time at 77°F (25°C) and 55% R.H.	-	16-24 hours	16-24 hours
6.	Hardness (shore A)	ASTM D2280	15A	30A
7.	Tensile Strngth psi) (N/sq.m)	ASTM D412	300 2.1	436 3.0
8.	Percent Elongation	ASTM D-412	100%	700%
9.	Water Vapour Transmision (grains/hr/sq ft)	ASTM E-96 (procedure B) water method	2.08	1.412
10.	Adhesion to Concrete	ASTM D-903	8 lb/in (1.5kg/cm)	9lb/in (16 kg/cm)
11.	Hydrostatic Pressure Resistance	ASTM D-751	No peel/film break	94 psi (0.65 N/sq m)
12.	Resistance to Decay	ASTM D-154	No surface defects	
13.	Moisture Vapour Transmission (grains/hr/sq.ft) (after decay test)	-	N/A	1.563
14.	Flash Point	-	120°F (40°C)	150°C (66°C)
15.	Recovery (percent)	ASTM D-412	98%	96%