

ASIA'S LEADING  
BUILDING PROTECTION  
SPECIALIST

# FORMDEX UNIFLEX TYPE-R

HIGH FLEXIBLE ROOT-RESISTANT CEMENTITIOUS  
WATERPROOFING MEMBRANE

## DATA SPECIFICATION SHEET

032 002  
Environmentally Preferred  
Coating



### DESCRIPTION

**Formdex Uniflex Type-R** is a specially formulated 2-component flexible cementitious waterproofing membrane with root resistant property. It is a water-based liquid applied waterproofing membrane that cures to form a permanently flexible yet tough and durable physical film. It waterproofs the surface when applied and can withstand high hydrostatic pressure. Its special root resistant property prevent plants roots from damaging the membrane.

**Formdex Uniflex Type-R** is 100% compatible to masonry structures and can receive plastering or protection screed. It can be applied on damp surface and cures even in confined spaces. Its root resistant property makes it ideal for waterproofing of Planters, Landscape Decks and Roof Gardens with ground covers, shrubs or low height plants. It is not suitable for planters with trees.

**Formdex Uniflex Type-R** mix is applied using roller, brush or by spray. The membrane is easy to apply, forms a homogeneous membrane when cured and takes to the shape of the surface it is applied on.

### AREA OF USE

Planters, Landscaping, Roof Gardens etc. without trees

### FEATURES

- No priming required.
- Excellent adhesion to masonry surface and is able to receive plaster or screed
- Water based, can be applied on damp surface or surface with high moisture content
- Air cure membrane, able to set even in small confined space
- Root resistant
- Easy to apply and seamless

### PRODUCT SPECIFICATION

	<b>Component A</b> <i>(Formdex Uniflex Powder)</i>	<b>Component B</b> <i>(Formdex Uniflex Type-R Liquid)</i>
<b>COLOUR:</b>	Grey	Green
<b>BULK DENSITY:</b>	1.02 kg/lit	1.02 kg/lit
<b>PACKAGING:</b>	25 kg Bag	17 kg
<b>MIX RATIO:</b>	A : B = 1.5 : 1.0 (by weight), A : B = 1.5 : 1.0 (by volume)	
<b>SHELF LIFE:</b>	One year in dry environment	
<b>COVERAGE:</b>	min. 1.0 kg/m <sup>2</sup> /coat x 2 coats. (approximately 1.2 mm dry film thickness) *Actual coverage depends on site condition.	
<b>DRYING AND OVERCOATING TIMES:</b>	3 hours between coats	
<b>INITIAL CURE:</b>	1 day	
<b>FULL CURE:</b>	7 days	
<b>POT LIFE:</b>	60 minutes @ 32°C	
<b>ELONGATION AT BREAK (ASTM D412):</b>	305%	
<b>TENSILE STRENGTH (ASTM D412):</b>	2.78 N/mm <sup>2</sup>	
<b>ADHESION TO SUBSTRATE (ASTM D454):</b>	2.56 N/mm <sup>2</sup>	

## PRODUCT SPECIFICATION

ROOT RESISTANCE (DIN 4062 / PD CEN/TS 14416:2014):	Yes
CRACK BRIDGING (ASTM C836)	Passed 2mm
RESISTANCE TO WATER PENETRATION (DIN 1048: Part 5):	No penetration @ 5.0 kgf/cm <sup>2</sup> for 72 hours
CHLORIDE CONTENT (ISEA):	0.002%

## SUBSTRATE PREPARATION

Ensure the substrate is clean, dry and free of dirt, oil etc. (as much as possible). Provide angle fillet at all upturns to parapets etc., alternatively a fibreglass can be used in replacement of angle fillet.

## SUBSTRATE APPLICATION

### Primer

- i. No priming is required

### Application of Formdex Uniflex Type-R

- i. **Formdex Uniflex Type-R** comes in Component A (Formdex Uniflex powder) & B (Formdex Uniflex Type-R liquid). Both components must be thoroughly mixed in the ratio of 3 parts of powder to 2 parts of liquid (by weight or volume). The mixture shall be thoroughly mixed at low speed with a mechanical mixer. And the mixed material has a pot life of approximately 60 minutes.
- ii. Prior to application, pre-damp the surfaces with splatter-dash of water. Substrate should be damp, but not wet with ponding water.
- iii. Apply 2 coats of **Formdex Uniflex Type-R** by roller or brush at 1kg/m<sup>2</sup>/coat to the entire slab and turn up every perimeter wall to a minimum height of 300mm or otherwise as specified by the consultants or architects.
- iv. Allow minimum drying time of 3 hours between coats.
- v. Overlapping between fresh and existing layers must be a minimum of 100mm width.
- vi. Allow membrane to cure for minimum 24 hours before checking entire surface for pin-holes and holidays (areas not covered properly).
- vii. If there are pinholes or holidays, immediately re-apply another coat of **Formdex Uniflex Type-R** onto affected area and leave to dry.

### Detailing (Upturn, Downpipe, Pipe Penetration etc.)

- i. Apply by 1 coat of **Formdex Uniflex Type-R** by brush or roller at coverage of minimum 1kg/m<sup>2</sup>/coat.
- ii. Lay a strip of fibreglass mat over the fresh coat of **Formdex Uniflex Type-R**.
- iii. Immediately apply the 2nd coat of **Formdex Uniflex Type-R** at coverage of minimum 1kg/m<sup>2</sup> over the fibreglass mat. Ensure that the entire fibreglass mat is fully embedded into both top and bottom coats.
- iv. Allow to cure for minimum 24 hours prior to laying of protection screed or other finishes.

\* If angle fillet is provided along internal corners, the use of fibreglass can be omitted.

## PONDING & PROTECTION

Ponding test can be carried out 24 hours after application. Back-filling, screeding, tiling etc. can normally be carried out carefully 24 hours after application of the final coat.

## HEALTH & SAFETY

Due to the content of cement, **Formdex Uniflex Type-R** is highly alkaline. It is relatively non-toxic and harmless when used properly. Prevent contact with eyes and skin. Do not inhale dust. Wear suitable gloves and eye protection. If in contact with eyes, wash immediately with clean water.

Place Product  
Sample Here

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Revision A

All data given and statements and recommendations made herein are base upon our research and experience and are believed to be accurate. However, no guarantee of their accuracy is made or applied. This data specification supersedes all other issues.