

# FORMROK POLYUREA 3K

HYBRID POLYUREA LIQUID-APPLIED WATERPROOFING COATING

## PRODUCT DESCRIPTION

FORMROK POLYUREA 3K is a two-component, highly elastic, liquid-applied hybrid polyurea coating system engineered for superior thermal stability and long-term ageing resistance. This coating is ideal for wide range of application as waterproofing, protective, and sealing coating.

Comprising two highly reactive liquid components, namely isocyanates and amines, this system is hand-applied to create a continuous, seamless, high-density, solid, and flexible hybrid polyurea membrane with excellent mechanical and chemical resistance properties.



## ADVANTAGES

- Excellent resistance to wear and abrasion
- Excellent tensile strength.
- Excellent adhesion to substrate
- High Elongation
- UV-resistant
- Fast curing system
- Easy to apply over a wide temperature range
- Able to withstand their elasticity at high temperature range

Achieves rapid curing times, allowing for quick project completion

## AREAS OF USAGE

- Car Park Decks and Driveways
- Roof Slab
- Landscape

## PRODUCT SPECIFICATION

### PACKAGING

### MIX RATIO

### SOLID CONTENT

### TENSILE STRENGTH (ASTM D412-16)

### ELONGATION AT BREAK (ASTM D412-16)

### ABRASION RESISTANCE (ASTM D4060)

### ADHESION TO CONCRETE (ASTM D4541)

### ADHESION TO STEEL (ASTM D4541 )

### TEAR STRENGTH (ASTM D624)

### RESISTANCE TO HYDROSTATIC HEAD

### STATIC CRACK AT BRIDGING (ASTM D4541)

### SHORE A HARDNESS (ASTM D2240-15)

: 13.3 kg (Component A)

: 6.7 kg (Component B)

: A : B = 2 : 1 (by weight)

: > 90%

:  $\geq$  15.0 Mpa

:  $\geq$  450%

: 100 mg

: > 2.5 MPa

: > 4.5 MPa

:  $\geq$  70 N/mm

: >70m - No Leakage (DIN 16726)

:  $\geq$  2 mm

:  $\geq$  80

# APPLICATION

## SUBSTRATE PREPARATION

All surfaces to receive waterproofing membrane shall have a steel or wooden float finished. Bricks and block surfaces shall be sound & stable, with pointing flushed or skim-coated. Rough bricks and cement blocks shall be made smooth by application of cement sand render (skim coat).

## APPLICATION

### A. PRIMING

- i. Use Formrok Primer (SF) to prime the substrate.
- ii. Mix component A & B using low speed electrical mixer for 2 minutes.
- iii. Pot life of mix is approximately 50 minutes.
- iv. Using moisture meter, check concrete moisture content. Must be less than 5%.
- v. Apply by roller or brush 1 coat of Primer Formrok Primer (SF) at 150 g/m<sup>2</sup>.
- vi. The coated surface needs to be completely dry for minimum of 2-4 hours before applying FORMROK POLYUREA 3K.
- vii. Apply another primer coating (if it is left exposed for more than 48 hours) before application of FORMROK POLYUREA 3K.

### B. APPLICATION OF FORMROK POLYUREA 3K

- i. FORMROK POLYUREA 3K can be applied with roller, brush, trowel or airless spray.
- ii. A minimum of 2 coat application is recommended, with each subsequent coat applied in perpendicular direction to the previous coat to achieve a uniform coating.
- iii. Apply FORMROK POLYUREA 3K at 1.0 kg/m<sup>2</sup> to achieve 0.8 mm thick per coat.
- iv. Leave to dry for 8 hours before application of the 2nd coat at 1.0 kg/m<sup>2</sup>.

### C. APPLICATION OF TOPCOAT

- i. Use Formrok 7100 Primer to prime the applied FORMROK POLYUREA 3K.
- ii. The primer needs to be completely dry for minimum of 2-4 hours before applying Formrok TC7100.
- iii. Use Formrok TC7100 as topcoat onto the primed polyurea surface.
- iv. It is a two-component polyurethane coating design to be used as a topcoat for applied polyurea waterproofing coatings.
- v. Stir component B thoroughly using mixer before mixing it together with component A for 2 minutes.
- vi. Apply Formrok TC7100 using roller at the coverage of 0.5kg/m<sup>2</sup>.
- vii. Allow to dry the topcoat for at least 24 hours before allowing light foot traffic.
- viii. For areas with vehicular traffic, spread thin layer of silica sand on wet topcoat and allow it to dry. Sweep away all the anti-skid sand that did not bond onto the topcoat.

## STORAGE / SHELF LIFE

Do not store product exposed to sun or weather. When kept in ventilated, dry, protected area, sealed pails have a 6 months shelf life. Once open, content may solidify within a few days.

## HEALTH & SAFETY

Read the product label and Safety Data Sheet (SDS) before use. Users should acquaint themselves with all risk and safety phrases.

Place Product  
Sample Here

Hitchins (FE) Marketing Pte Ltd  
Telephone: (65) 6861 1177  
Facsimile: (65) 6863 4240  
Email: [hitchins@hitchins.com](mailto:hitchins@hitchins.com)

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.