



**Hitchins**  
since 1932

# FORMCEAL TYPE-R

ROOT RESISTANT LIQUID APPLIED  
WATERPROOFING MEMBRANE

ASIA'S LEADING  
BUILDING PROTECTION  
SPECIALIST



# FORMCEAL TYPE-R

## ROOT RESISTANT LIQUID APPLIED WATERPROOFING MEMBRANE

FORMCEAL TYPE-R IS A SINGLE COMPONENT; LIQUID APPLIED WATERPROOFING MEMBRANE THAT OFFERS ROOT RESISTANT AND WATERPROOFING PROTECTION TO THE AREAS IT IS APPLIED ON.



BEDOK INTEGRATED COMPLEX - SINGAPORE

## PRODUCT DESCRIPTION

**Formceal Type-R** is a single component pure polyurethane elastomer liquid-applied waterproofing membrane with root resistant properties. It does not contain tar or bitumen and will not bleed or stain. It is a high performance membrane and forms a permanently flexible, tough, high build waterproofing barrier.

## SPECIAL FEATURES

### Root-Resistant

Formceal Type-R is a concealed root-resistant waterproofing membrane.

### Cost Effective

Provides an economical and cost effective waterproofing method for planter boxes and landscape areas with shrubs and ground covers.

### Seamless

Easily applied using brush or roller. This eliminates potential failure due to poor joints, ideal for irregular shape areas that requires a lot of detailing work.

### Vapour Permeability

Formceal Type-R is vapour permeable, thus permitting trapped moisture vapour to escape.

### Environmentally Friendly

Green label Certified.

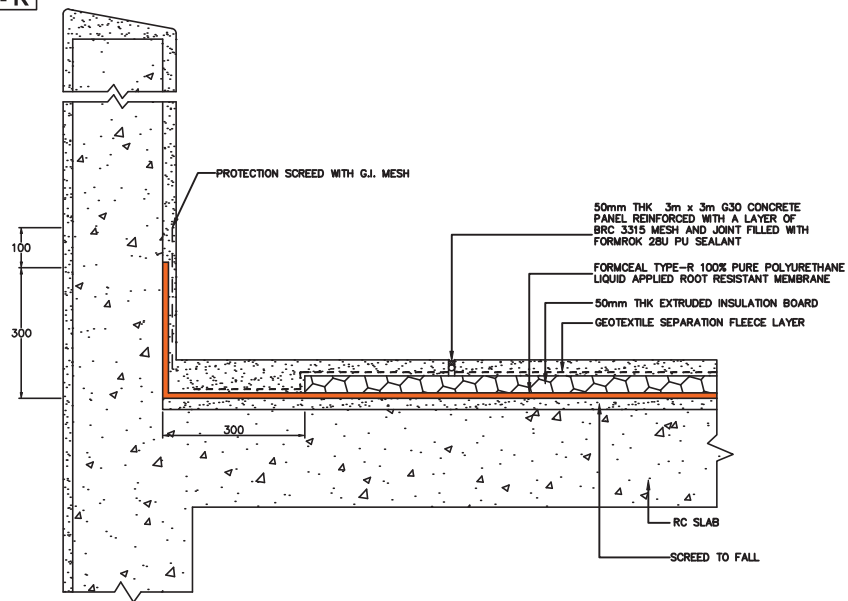
“FORMCEAL TYPE-R is ideal for use in planter boxes/ landscape areas with ground covers, shrubs, turfings, without trees.”

## AREAS OF USAGE

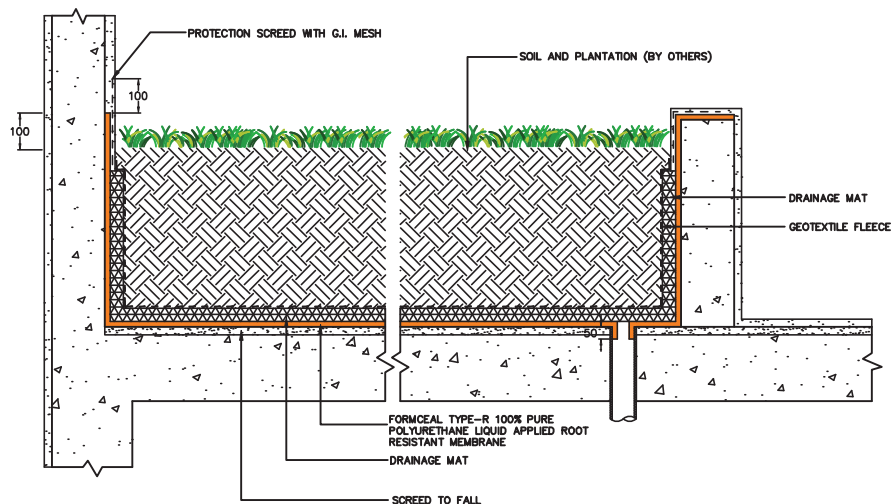
- Planter Boxes
- Landscape Areas
- Roof Gardens
- R.C Roofs
- Wet Areas
- Tankings

# DIAGRAM OVERVIEW

## FORMCEAL TYPE - R



## FORMCEAL TYPE - R



## WARRANTY INFORMATION

Only Hitchins' trained applicators are approved to undertake all application work. Hitchins products carry a long-term warranty for both materials and workmanship. The warranty is further backed by Hitchins International Fidelity Fund. Please check with our local applicators if this fund is available in your country. For complete warranty and other related information, please contact Hitchins regional offices.



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SPECIALIST

# FORMCEAL TYPE-R

SINGLE COMPONENT ROOT-RESISTANT PURE POLYURETHANE  
WATERPROOFING MEMBRANE



032 002  
Environmentally  
Friendly Coating



## DATA SPECIFICATION SHEET

### DESCRIPTION

Formceal Type-R is a single component pure polyurethane elastomer liquid-applied waterproofing membrane with root resistant properties. It does not contain tar or bitumen and will not bleed or stain. It is a high performance curing membrane and forms a permanently flexible, tough, high build waterproofing barrier.

Formceal Type-R is used as a concealed system. It is applied directly from the pail using brush, roller, squeegee or airless spray. It is seamless and takes to the shape of the surface it is applied on.

### FEATURES

- Self-priming single component
- Does not contain tar or bitumen
- Easy to apply and seamless
- Excellent physical properties
- Root-Resistant

### AREA OF USE

- Wet Areas – toilets, kitchen, balconies, shower etc.
- Concealed systems - roofs, decks, podiums etc.
- Planters, landscape decks, roof gardens - no trees
- Tanking – basements, retaining walls, pond water features, non-potable water tanks

### PRODUCT SPECIFICATION

**PACKING:** 25 kg/pail

**SOLID CONTENT:** >90%

**DRY FILM THICKNESS:** Approximately 1mm

**RESISTANCE TO WATER PENETRATION (DIN 1048 PT5):** 7 bars

**SHORE A HARDNESS (ASTM D2240):** 85

**WATER VAPOUR TRANSMISSION (ASTM E96):** 6.25g/m<sup>2</sup>/24 hrs

**CRACK BRIDGING (ASTM C836):** No cracks @3.2mm

**TENSILE STRENGTH (SS374):** 2.94 N/mm<sup>2</sup>

**ELONGATION (SS374):** 1050%

**ROOT RESISTANCE (DIN 4062/ PD CEN/TS 14416:2014):** Yes

**ADHESION TO SUBSTRATE (ASTM D4541):** 2.51 N/mm<sup>2</sup>

**MODULUS @ 350% ELONGATION (ASTM D412):** 2.507 MPa

**RECOVERY @ 350% ELONGATION (ASTM D412):** 95.4%

## SUBSTRATE PREPARATION

Surfaces must be sound, smooth and free from dust, laitance, loose matter, oil or other contaminants. Concrete should be cured for 28 days and render for 7 days.

## APPLICATION

Primer – not required

### **Application of Formceal Type-R**

- Apply Formceal Type-R by brush, roller, squeegee or airless spray
- Application rate is 0.6kg/m<sup>2</sup> x 2 coats
  - o This can applied in single coat at 1.2kg/m<sup>2</sup>
- If application is in 2 coats, allow first coat to dry fully before application of second coat
- Allow membrane to cure for 48 hours before ponding test

## PONDING TEST

Ponding test can be carried out 48hours after application of final topcoat.

## STORAGE / SHELF LIFE

Do not store product exposed to sun or weather. When kept in cool, dry, protected area, sealed pails have a 12 months shelf life. Once opened, content may solidify within a few days.

## HEALTH & SAFETY

Spillage and tools should be cleaned with kerosene or white spirit.

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

Place Product  
Sample Here

Revision C - Jul 21

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.



# MAJOR PROJECTS



Wisteria - Singapore



Grace Assembly of God Church - Singapore



Hexa Cube - Singapore



Nucleos @ Biopolis (Ph 5) - Singapore



Ripple Bay - Singapore



The Hillford - Singapore



Alumni House - Singapore



River Valley High School - Singapore



The Tembusu - Singapore

# APPLICATION & INSTALLATION



1. Surface Preparation



2. Application to Weep hole



3. Upturn with either Angle Fillet or Fibreglass



4. Application of 1<sup>st</sup> Coat



5. Application of 2<sup>nd</sup> Coat



6. Completion of Formceal Type-R