

## Contite® Polyurea

A 100% PURE POLYUREA WATERPROOFING SYSTEM

### DESCRIPTION

Contite Polyurea is a 2 component 100% solids polyurea waterproofing system suitable for exposed environments.

### USES & ADVANTAGES

Contite Polyurea is formulated for the waterproofing and corrosion protection of almost all substrates and is used in both commercial building, industrial complexes & infrastructure projects. It is formulated to withstand long term water immersion.

Areas of use include in:-

Airport facilities, power plants, marine environments, heavy industry, buildings, parking decks, potable water storage, waste water treatment plants & food processing plants.

Advantages include:-

- 2 component 1:1 by volume.
- Non toxic odorless and zero VOC.
- Excellent thermal stability, still flexible at low temperatures and UV resistant.
- Good resistance to chemicals.
- Abrasion resistant.
- Suitable for use in contact with potable water.
- 100% solids.
- Solvent free.
- Fast cure.
- High impact, tear, corrosion, abrasion and puncture, resistance.
- High output per day up to 1000 m<sup>2</sup>.

### PROPERTIES

#### PHYSICAL PROPERTIES

**Chemical Structure:** A = MDI Prepolymer  
B = Amine Resin

**Standard Colours:** Grey

**Density:** 0.99-1.03 gr/cm<sup>3</sup>

ASTM D792

**Gel/Set Time:** 5-10 seconds

**Tack-free Time:** 15-25 seconds

**Recoat Time:** 0-12 hrs.

(without pretreatment)

**Over Coat Time:** 12 hrs.

**Tensile Strength:** ≥ 18 MPa

ASTM D412

**Modulus:** 100% elongation ≥10 MPa

300% elongation ≥15 MPa

≥350 %

**Elongation:**

ASTM D412

**Hardness:**

Shore D 40-45 ASTM D2240

Shore A 90-95 ASTM D2240

**Tear Strength:** ≥50 N/mm

ASTM D624

**Pull Off Strength:** concrete : ≥ 2.5 N/mm<sup>2</sup>

ASTM D4541 steel : ≥ 6 N/mm<sup>2</sup>

**Heat Resistance (120°C) :** 24 hrs.

ASTM D573-04

**VOC Content:** 0 %

ASTM D1259

**Solid Content:** 100%

ASTM D2697

**Taber Abrasion:** < 30 mg (H22, 1000 cycle)

EN ISO 5470-1

**Impact Resistance:** Class III

EN ISO 6272-1

**Chemical Resistance:**

10% Sulphuric & Hydrochloric Acid Excellent

Alkali 30% Excellent

Oil Resistance Excellent

(Diesel & Crude)

### COMPONENT PROPERTIES

	Component A (MDI Prepolymer)	Component B (Amine Resin)
<b>Density@25°C</b> (gr/cm <sup>3</sup> ):	1.11±0.03	1.02±0.02
<b>Viscosity@25°C</b> (mPa.s)	500-800	300-600

### PROCESS PROPERTIES

**Mix Ratio**

by volume [A : B] : 1 : 1

by weight [A : B] : 1.12 : 1

**Process Temperature (°C) :** 70-80

**Process Pressure (bar):** 180-200

### SURFACE PREPARATION

Concrete surfaces should be sound, clean and free of cement laitance. Abrasive blasting will achieve an open texture.

Surface defects must be repaired using a suitable repair mortar from Cormix

All dust and friable material to be removed, vacuum surfaces to remove dust. The pull off strength of the surface should be at least 1.5 N/mm<sup>2</sup> and the moisture content less than 6%.

### PRIMING

Unsound friable surfaces should be primed with **Floorgard Primer 903**. Surfaces containing moisture should be primed with **Floorgard Moisture Barrier**.

### CONSUMPTION & APPLICATION

Polyurea Coating : 1.00 - 1.05 kg/m<sup>2</sup>/mm. Depends on surface of substrate.

The minimum thickness for abrasion resistance should be 2 mm and for pure waterproofing 1-2 mm.

To build the thickness up allow enough time for the previous coat to become firm. In thicknesses over 3 mm pause for more than 5 minutes every approximately 3 mm.

The product may be top coated within 12 hrs of applying base coat, with a colour stable aliphatic polyurea or polyurethane if required.

Apply as soon as possible after the final coat reaches tack free.

# Contite® Polyurea

A 100% PURE POLYUREA WATERPROOFING SYSTEM

The product may be top coated within 12 hrs of applying base coat, with a colour stable aliphatic polyurea or polyurethane if required.

Apply as soon as possible after the final coat reaches tack free.

Application should be through a plural component high pressure reactor at a minimum of 2000 psi spray pressure with a material temperature of 60-80°C. A Graco plural reactor may be used.

Prior to application, **Contite Polyurea** Part B must be stirred at least 30 minutes using a barrel mixer until a homogenous mixture and colour obtained.

The min recommended material temperature is 24°C & substrate 10°C. The maximum substrate temperature is 50°C. If in doubt consult Cormix.

Full cure takes up to 24 hours, material may be recoated when tack free.

Old materials should be sound and lightly abraded.

## PACKAGING

420 kg set.

## STORAGE & SHELF LIFE

Store in a well ventilated warehouse in original closed drums at 20 -25°C. Below 10°C is not recommended protect from frost.

Do not heat the material above 80°C

If stored correctly the shelf life is 9 months in unopened original packaging.

## HEALTH & SAFETY

Refer to advise on the safe handling, storage & disposal of the material in the MSDS available from Cormix International Ltd

## TECHNICAL SERVICE

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

## QUALITY ASSURANCE

ISO 9001: 2008 verified by TUV Nord.

## DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc.

Cormix does not take responsibility nor need to defend others testing that does not achieve the published data.

The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product.

Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered.

## CONTACT DETAILS

### Cormix International Limited

89 Romklao Rd., Sansab, Minburi, Bangkok 10510

Tel. (66 2) 917 3955-8, 543 8890

Fax. (66 2) 917 3959, 543 8891

<http://www.cormix.com>

E-mail: [info@cormix.com](mailto:info@cormix.com)