

## Contite® PUE 300/301

A POLYURETHANE RESIN FOR RIGID STRUCTURAL SEALING OF BOTH DRY & WET CRACKS

### DESCRIPTION

**Contite PUE300/301** is a two component, solvent and phthalate free, polyurethane system consisting of a resin component **Contite PUE300** and special hardener **Contite PU301**.

This system is ideal for the structural sealing of cracks in concrete structures as well as areas suffering from water leakage.

### USES & ADVANTAGES

**Contite PUE300/301** is applied directly into dry & moist cracks. If water leakage has to be stopped **Contite PUE300/301** can be used in combination with the **Contite PUE100/E101**. **Contite PUE100/E101** will first stop the water and/or react the water away, after which the injection of **Contite PUE300/301** can be carried out.

**Typical areas of use are :-**

- The structural sealing of cracks in concrete structures such as basements, tunnels etc. In areas where moist or wet cracks are present and a structural sealing is needed.

**Advantages include:-**

- Good adhesion on wet as well as dry concrete.
- Low viscosity; therefore good penetration into the crack.
- Can be applied as one or two component material.
- The curing time can be adjusted relatively simply.
- The cured material is resistant to hydrolysis.
- Cracks can be injected with water before sealing. The advantage is adequate cleaning and a good control of the flow characteristics.

### PROPERTIES

	Contite PUE300	Contite PU301
<b>Colour :</b>	light yellow	dark brown
<b>SG :</b> (ASTM D1475)	1.04-1.06	1.22-1.24
<b>Viscosity at 25°C, mPa.s:</b> (ASTM D2196) (at 77°F, lb/ft.s)	70-120	170-270
<b>Pot life at 25°C (77°F) :</b>	0.047-0.08	0.11-0.18)
<b>Gel time at 25°C (77°F) :</b>		40-60 min.
<b>Compressive Strength:</b> (ASTM C579)		60-80 min.
<b>Flexural Strength:</b> (ASTM C348)		>50 N/mm <sup>2</sup> at 7 days
		approx 55 N/mm <sup>2</sup>

### APPLICATION

Although **Contite PUE300/301** is a two component system it can be used as a one component system. Used as One Component System.

**Step 1 :** Add the required amount of **Contite PU301** to the **Contite PUE300**.

**Step 2 :** Mix it thoroughly until a homogeneous mixture has been obtained, about 2 minutes.

**Step 3 :** The mix can be pumped by means of a single component injection pump. The pot life of

After the injection the pump should be cleaned with **Contite PU Purge**.

**Used as Two Component System**

In case a faster curing must be obtained **Contite PUE300/301** can be applied as a two component system by means of mixing / metering equipment. Due to the low viscosity of the components a simple static mixer can be used.

In the case of a two component application it is possible to speed up the reacting time to obtain faster curing. For this purpose Cormix supplies a special catalyst, **Contite Cat 42**, to be added to the **Contite PUE300**.

The following table clearly indicates the influence of adding **Contite Cat 42** to the **Contite PUE300** on the gel time of the mixture.

Dosage of Contite Cat 42 in % by weight of Contite PUE300	Material Temperature		
	5°C (41°F)	21°C (70°F)	30°C (86°F)
	Reaction Time		
0%	~ 62 min	~ 60 min	~ 50 min
0.20%	~ 28 min	~ 27 min	~ 12 min
0.40%	~ 22 min	~ 20 min	~ 10 min
0.60%	~ 12 min	~ 11 min	~ 6 min
0.80%	~ 11 min	~ 8 min	~ 5 min
1.00%	~ 10 min	~ 6 min	~ 3 min

*Note : The given data are laboratory parameters and may deviate depending on the object and conditions on site.*

After injection the pumps and the mixing head should be cleaned with **Contite PU Purge**.

**Note :** To prevent condensation on the liquids at the start of work, the temperature of the components should be at least as high as the ambient temperature.

All opened drums of **Contite PUE300/301** should be purged with dry nitrogen and capped when not in use.

### MIX RATIO

**Contite PUE300 : Contite PU301 = 1 : 1.15** by weight

or

**Contite PUE300 : Contite PU301 = 1 : 1** by volume

### MECHANICAL PHYSICAL PROPERTIES OF THE END PRODUCT

<b>Elongation at break,</b> ASTM D638	4%
<b>Shore hardness :</b> ASTM D2240	75-80 D

### PACKAGING

18.70 kg (41.22 lb) set;

**Contite PUE300** = 8.70 kg (19.18 lb)

**Contite PU301** = 10 kg (22.04 lb) in a can.

Other packing units on request.

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## STORAGE & SHELF LIFE

Contite PUE300/301 are very stable when properly handled.

To avoid problems, it is very important to understand that these materials are both temperature and moisture sensitive. Therefore, materials should be stored in an area with temperatures not exceeding 35°C (95°F) or not lower than 5°C (41°F), the shelf life is approximately 12 months in unopened drums.

All part used drums should be covered by nitrogen and re-sealed to prevent the ingress of moisture.

## HEALTH & SAFETY

Ordinary hygienic principles, such as washing the compounds from the hands before eating or smoking should be observed. Hands should be washed with a waterless cleaner followed by soap and water. Avoid breathing of vapours, prolonged contact with the skin, contact with open breaks in the skin, and ingestion. Use

Contite PUE300/301 with adequate ventilation.

## 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.



Cormix International Limited  
89 Romklao Rd, Sansab,  
Minburi, Bangkok 10150  
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1012-CPD-0105  
**EN 1504-5**  
**Crack-filling materials**  
**for concrete**  
**U(D1)W(2)(1/2/3)(5/30)**

Elongation: >4%  
Watertightness at:  $2 \times 10^5$  Pa  
Workability:  
• Crack width:  $\geq 0.2$  mm  
• Moisture state of crack: Wet, damp, dry.  
Corrosion behavior: Deemed to have No corrosive effect  
Dangerous substances: Comply with 5.4

## 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)