

Contite® PUE 300/301

A POLYURETHANE RESIN FOR RIGID STRUCTURAL SEALING OF DRY CRACKS

DESCRIPTION

Contite PUE 300/301 is a two component, solvent and phthalate free, polyurethane system consisting of a resin component Contite PUE 300 and special hardener Contite PU 301.

This system is ideal for the structural sealing of cracks in concrete structures.

USES & ADVANTAGES

Contite PUE 300/301 is applied directly into dry cracks. If water leakage has to be stopped Contite PUE 300/301 can be used in combination with the Contite PUE 100/E101. Contite PUE 100/E101 will first stop the water and/or react the water away, after which the injection of Contite PUE 300/301 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 dry cracks are present and a structural sealing is needed.

Advantages include:-

- Good adhesion on 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.

PROPERTIES

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

APPLICATION

Although Contite PUE300/301 is a two component system it can be used as a one component system.

Used as a 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 the system is 70-90 minutes at 25°C (77°F).

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 PUE 300/301 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 PUE 300.

The following table clearly indicates the influence of adding Contite Cat 42 to the Contite PUE 300 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 PUE 300/301 should be capped when not in use.

MIX RATIO

Contite PUE 300 : Contite PU 301 = 1 : 1.15 by weight or

Contite PUE 300 : Contite PU 301 = 1.02 : 1 by volume

MECHANICAL PHYSICAL PROPERTIES OF THE END PRODUCT

	According to Unit Value	
Elongation at break :	4%	ASTM D638
Shore hardness :	75-80 D	ASTM D2240

PACKAGING

18.70 kg (41.22 lb) set;

Contite PUE 300 = 8.70 kg (19.18lb)

Contite PU 301 = 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 resealed 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 water less 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 PUE 300/301 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.



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Concrete Injection : Injection
Products for Filling Cracks,
Voids and Interstices in
Concrete with Transmission
of Forces
U(F1)W(2)(1)(5/35)(0)

Adhesion by Tensile Bond:	>2N/mm ²
Volumetric Shrinkage:	< 3%
Workability:	
Crack width:	≥ 0.2 mm
Degree of crack filling:	> 90%
Moisture level of crack:	Dry
Suitable for use:	5°C to 35°C
Tensile Strength (3 days):	> 3N/mm ²

CONTACT DETAILS

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