

Contite® PU100/101

RAPID FOAMING WATER STOPPING MATERIAL

DESCRIPTION

Contite PU100/101 is a one component hydrophobic polyurethane injection grout, when used in conjunction with **Contite PU101** it produces an effective means of stopping water seepage. **Contite PU100** consists of MDI based, solvent free isocyanate component & a special catalyst **Contite PU101**. The system only reacts when it comes into contact with water producing a relatively stiff polyurethane foam. Complies to EN1504 Part 9 and EN1504 Part 5. Class (S) - Principle 1 : Protection Against Ingress (PI). Method 1.5 - Filling Cracks.

USES & ADVANTAGES

Contite PU100/101 is used to stop water penetration or react away water in cracks, voids or soil.

Hydrophobic injection foams are usually considered as temporary waterstops as far as cracks are concerned. For additional sealing after the waterflow has stopped **Contite PUE200/E201** may be used for elastic sealing or **Contite PUE300/301** for rigid sealing (structural repair).

The unconfined expansion of the foam is up to 30 time's the original volume.

The resin can be injected using a one component pump and if required the reaction time can be adjusted to up to one second by addition of different amounts of **Contite PU101**.

Uses include for:-

- Stopping water seepage.
- Sealing leaking cracks & voids.
- Injection in leaking diaphragm walls.

Typical applications include :- sealing leaks in tunnels, basements, subways, pipe lines, manholes, dams, reservoirs, pools, water tanks etc.

Advantages include:-

- Solvent & filler free.
- Good adhesion to substrate.
- Insignificant shrinkage, stable when cured.
- Controlled expansion reacting away the water no "Sponge" effect.
- MDI based safer than TDI types.
- Reaction time may be modified, suitable for stopping seepage to heavy leakage.

PROPERTIES

	Contite PU100	Contite PU101
Colour :	brown	clear
SG : (ASTM D1475)	1.12-1.14	0.93-0.95
Viscosity at 25°C, mPa.s (ASTM D2196)	50-150	10-20
Pot life :	4-8 hrs when protected from moisture	
Density of the mixture : at 25°C (77°F)	approx. 1.12 kg/l (9.3 lb/gallon)	
Density of the fully cured foam (free foamed)	approx. 30-40 kg/l	

Volume expansion : (free foamed)	max. 1 : 30
Starting time :	approx. 1-10 seconds
Expansion time :	approx. 10-20 seconds
Application temp. :	+5°C to +50°C
Flash point :	> 100°C

INSTRUCTIONS FOR USE

Contite PU100/101 may be used with high or low pressure injection equipment via installed injection packers or similar. To get controlled reaction with the water the gel time can be adjusted by adding **Contite PU101** to **Contite PU100** in accordance with the table below.

Dosage of Contite PU101 in % by weight of Contite	Reaction Time of Contite PU100/ 101	Material Temperature		
		5°C (41°F)	21°C (70°F)	30°C (86°F)
4%	Expansion Start	~ 22 sec	~ 20 sec	~ 20 sec
	Expansion end	~ 95 sec	~ 88 sec	~ 80 sec
6%	Expansion Start	~ 22 sec	~ 18 sec	~ 14 sec
	Expansion end	~ 80 sec	~ 73 sec	~ 60 sec
8%	Expansion Start	~ 14 sec	~ 13 sec	~ 12 sec
	Expansion end	~ 60 sec	~ 52 sec	~ 50 sec
10%	Expansion Start	~ 14 sec	~ 14 sec	~ 11sec
	Expansion end	~ 50 sec	~ 47 sec	~ 40 sec

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

- The starting time is the time at which the mix starts foaming; starting from point 0.
- The expansion time is when the reaction is completed & no further expansion is noted.

Depending on the velocity of running water or the amount of water expected in the crack the gel time should be fixed before injection.

The blended material can be pumped by the use of a single component injection pump equipped for higher pressure to withstand the water pressure.

If cracks or voids are dry flush by injecting with clean water before resin injection.

To prevent condensation on the liquids at the beginning of work the temperature of the components should be at least as high as ambient temperature. All opened drums should be capped when not in use.

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PACKAGING

Contite PU100 : 20 kg or 2 kg in a can.

Contite PU101 : 2 kg or 200 g in a can.

Other packing units on request.

STORAGE & SHELF LIFE

Store in the shade in dry conditions. Stored in well-sealed drums, in a dry area, at temperatures of 5°C - 35°C, the shelf life is approximately 12 months in unopened drums.

HEALTH & SAFETY

Avoid skin and eye contact. Wear rubber gloves and safety goggles. Hands should be cleaned with waterless cleaner, followed by soap and water. Avoid breathing of vapours; use with adequate ventilation. Please consult our MSDS for more information (available upon request).

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 : 2015 verified by TUV Nord.

ISO 14001 : 2015 verified by Lloyd's Register International.

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 advice offered.

CONTACT DETAILS

Cormix International Limited

89 Romklao Rd., Sansab, Minburi, Bangkok 10510

Tel. (66 2) 917 3955-8, 117 3396

<http://www.cormix.com>

E-mail: info@cormix.com