

Contite® PUE100/E101

RAPID FOAMING WATER STOPPING MATERIAL

DESCRIPTION

Contite PUE100/E101 is a one component hydrophobic polyurethane injection grout, when used in conjunction with Contite PUE101 it produces an effective means of stopping water seepage. Contite PUE100 consists of MDI based, solvent and phthalate free isocyanate component & a special catalyst Contite PUE 101. The system only reacts when it comes into contact with water producing a relatively stiff polyurethane foam.

USES & ADVANTAGES

Contite PUE100/E101 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 times 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 PUE101.

Uses include for:-

- Stopping water seepage.
- Sealing leaking cracks & voids.
- Injection in leaking diaphragm walls.
- Repair of concrete joints (combine with oakum).

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

Advantages include:-

- Solvent, filler & phthalate 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 PUE100	Contite PUE101
Colour :	brown	clear
SG : (ASTM D1475)	1.12-1.14	0.93-0.95
Viscosity at 25°C, mPa.s : (ASTM D2196)	10-30	10-30
(at 77°F, lb/ft.s)	0.054-0.094	0.007-0.020)
Pot life :	4-8 hrs when protected from moisture	
Density of the mixture :	approx. 1.12 kg/l at 25°C (9.3 lb/gallon)	
Density of the fully cured :	approx. 30-40 kg/l (ASTM D3574)	
Foam (free foamed)	(250-333 lb/gallon)	

Volume expansion :	max. 30 (free foamed)
Starting time :	approx. 1-10 seconds
Expansion time :	approx. 10-20 seconds
Application temp. :	+5°C to +50°C (41°F to 122°F)
Flash point :	> 100°C (212°F)

INSTRUCTIONS FOR USE

Contite PUE100/E101 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 PUE101 to Contite PUE100 in accordance with the table below.

Dosage of Contite PUE101 in % by weight of Contite PUE100	Reaction Time of Contite PUE100/ 101	Material Temperature		
		5°C (41°F)	21°C (70°F)	30°C (86°F)
4%	Expansion Start	~ 25 sec	~ 22 sec	~ 21sec
	Expansion end	~ 81sec	~ 77 sec	~ 72 sec
6%	Expansion Start	~ 22 sec	~ 19 sec	~ 13 sec
	Expansion end	~ 75 sec	~ 58 sec	~ 52 sec
8%	Expansion Start	~ 20 sec	~ 13 sec	~ 12 sec
	Expansion end	~ 80 sec	~ 50 sec	~ 48 sec
10%	Expansion Start	~ 15 sec	~ 11sec	~ 11sec
	Expansion end	~ 80 sec	~ 50 sec	~ 48 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.

MIX RATIO

Contite PUE100 : Contite PUE101 = 10 : 1 by weight.

Contite® PUE100/E101**RAPID FOAMING WATER STOPPING MATERIAL****PACKAGING**

Contite PUE100 : 20 kg (44 lb) or 2 kg (4.4 lb) in a can
Contite PUE101 : 2 kg (4.4 lb) or 200 g (0.44 lb) 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 (41°F - 95°C), the shelf life is approximately 6 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 : 2008 verified by TUV Nord.



Cormix International Limited
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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:	>10%
Water tightness at:	2x10 ⁵ Pa
Workability:	
Crack width:	≥ 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

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