

Contite® PUE 400/E401

A TWO IN ONE POLYURETHANE INJECTION RESIN

DESCRIPTION

Contite PUE 400/E401 is a 2 component hydrophobic polyurethane 2 in 1 injection resin system. When **Contite PUE 400/E401** comes in to contact with water it reacts rapidly to form flexible foam which stops leakage of water from the concrete crack, if injected in dry conditions it forms a solid elastic resin to permanently seal the crack.

USES & ADVANTAGES

Contite PUE 400/E401 is a rapid reacting resin used to stop the water leakage in the short term as well as to form a solid resin for permanent sealing of cracks.

Contite PUE 400/E401 is used to stop water penetration or react away water in cracks, voids or soil. The resin can be injected using a one component pump.

Uses include for:

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

Typical areas of use include:-

Sealing leaks in tunnels, basements, subways, pipe lines, manholes, dams, reservoirs, pools, water tanks etc.

Advantages:

- 2 in 1 system: only one product needed at jobsite.
- Simple mix ratio 1:1 by weight and volume.
- Re-injection through the same packers as initial.
- 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.

PROPERTIES

	For Part A	For Part B
Appearance :	Light yellow liquid	Dark brown liquid
Viscosity (mPa.s) at 25°C,:	120-150	100-200
Specific gravity :	1.03-1.05	1.13-1.15
Pot life :	Mixed Material 15-20 Minutes	
Gel time :	20-40 Minutes	
Volume expansion: (Freely foaming)	Foam Properties Max.30	
Reaction time:	Approx. 20-60 seconds	
Expansion time:	Approx. 2 - 5 minutes	
Application temp:	+5°C to +50°C (41°F to 122°F)	
Flash point:	> 100°C (212°F)	

MIX RATIO

Contite PUE 400 : Contite PUE401 = 1:1 by weight.

or

Contite PUE 400 : Contite PUE401 = 1.1:1 by volume.

INSTRUCTIONS FOR USE

Depending on the status of crack, wet or dry 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 high 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.

*Note : **Contite PUE 400/E401** is suitable for stopping water leakages. Where water pressure < 1 bar.*

MIXING

Mix part A & B using a slow speed drill and paddle (400 rpm.). Mix the material approx. 2-3 minutes until a homogeneous mixture is formed.

APPLICATION

Contite PUE 400/E401 is used to stop water penetration or react away water in cracks, voids or soil. It is injected as a single component via injection packers into the water bearing zones using a manual pump or electrical injection pump. When in contact with water, the PU foams up strongly and hardens. Inject **Contite PUE 400/E401** until the resin is discharged as foam from the adjoining drill hole or respectively the surface of crack. The follow up injection has to be carried out within the pot life of the initially injected material. (When filling large, wet voids inject in two stages. Waiting time between the first and second injection is at least 1-2 hours.)

For stopping water leakage:

- For vertical cracks or inclined cracks begin by pumping material into the bottom entry port. Material will react with leaking water forming flexible foam and stop water. Keep injecting until the material appears above the bottom entry. Disconnect and start injection at the above packer.
- For horizontal cracks the injection should proceed from one end of the crack to the other in the same manner.

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For crack sealing:

- Crack width : 3-10 mm.
- For vertical cracks or inclined cracks begin by pumping material into the bottom entry port. Material will react and form a solid elastic resin to seal the cracks. Keep injecting until the material appears above the bottom entry. Disconnect and start injection at the above packer.
- For horizontal cracks the injection should proceed from one end of the crack to the other in the same manner.

The crack is full if the pressure can be maintained.

PACKAGING

20 kg (44 lb) set; **Contite PUE 400** 10 kg (22 lb) & **Contite PUE 401** 10 kg (22 lb) in steel packaging. Other packing units are available on request.

STORAGE CONDITIONS & 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 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.



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Concrete Injection : Injection
Products for Ductile Filling of
Crack, Voids and Interstices in
Concrete
U(D2) W(2)(1/2/3)(5/35)(0)

Adherence and Elongation:	>0.6N/mm ²
Capacity for Ductile Injection Workability:	
Crack width:	≥ 0.2 mm
Moisture level of crack:	Dry, damp, Wet
Suitable for use:	5°C to 35°C
Compatibility with Concrete :	Deformation loss < 20%

CONTACT DETAILS

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