

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 PUE101**. 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 PUE200/201** 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 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:-

- 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) (at 77°F, lb/ft.s | 10-30 0.054-0.094 | 10-30 0.007-0.020) |
| 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 : (ASTM D3574) | approx. 30-40 g/l | |

| | |
|--|----------------------------------|
| foam (free foamed) | (250-333 lb/gallon) |
| Volume expansion : (free foamed) | max. 30 |
| 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 | ~21 sec |
| | Expansion end | ~81 sec | ~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 | ~11 sec | ~11 sec |
| | Expansion end | ~68 sec | ~48 sec | ~45 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 purged with dry nitrogen & capped when not in use.

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°F), 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.



1012

Cormix International Limited
89 Romklao Rd., Sansab,
Minburi Bangkok 10510
09

1012-CPD-0105

EN 1504-5

**Crack-filling materials
for concrete
U(D1)W(2)(1/2/3/4)(5/30)**

| | |
|----------------------------|--|
| Elongation: | >10% |
| Watertightness 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

Cormix International Limited

Regional Office,
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

NOTE : Every reasonable precaution is taken in the manufacture of all CORMIX-products to ensure that they comply with CORMIX's high standard of quality. The recommendations and properties of the product are based upon what is believed to be the most reliable information available, and are not intended as recommendations which infringe on other patents. Although all CORMIX-products are subject to rigid quality tests, no specific guarantee can be given, because results depend, not only on quality, but also on other factors beyond our control. We welcome therefore consultation in the event of doubt concerning application, or performance, and point out that oral recommendations, which vary from the instructions contained herein, are not binding without written confirmation by CORMIX. All transactions shall be subject to our terms and conditions of sale-delivery-and-service. This data sheet supersedes the previous one and a reprint may be issued without notice to supersede this edition, as and when deemed necessary. The information given in this leaflet is to the best of our knowledge true and reliable. Field service where provided does not constitute supervisory responsibility. Our guarantee is therefore limited to the quality of materials delivered.