

Lambert® LamFlex 102

Single Pack Flexible Polyurethane Grout

Description

LamFlex 102 is a single component hydrophilic polyurethane based on TDI in combination with polyether polyols. It only reacts when it comes in contact with water and forms a flexible polyurethane seal.

Characteristics

- Potable water (WRc) approved.
- High tensile adhesion.
- Solvent free environmentally safe.
- Excellent adhesion to most surfaces including concrete, brick and mortar.
- Resistant to most organic solvents, mild acids and alkalis.
- Rapidly forms a highly resilient flexible seal that allows movement to the crack, fracture or joint.
- Reacts even with seawater or mineral water.

Applications

LamFlex 102 is a hydrophilic polyurethane prepolymer liquid for hydrophilic polymer resin type water stopping.

Can be injected directly into a leaking crack, fracture or joint, or it can be injected 1:1 with water.

After injection has taken place the LamFlex 102 will foam to expand and fill the void, forming a tight, impermeable elastomeric seal, stopping the water flow.

Operation

LamFlex 102 can be injected by two methods.

1. Single piston pump that is equipped for high pressure. The resin will react with the water in the structure and foam as tabled overleaf.
2. Twin piston pump water / resin ratio can be varied to form different density foams as tabled overleaf.

Note

It is recommended that the material be conditioned to appropriate temperatures for at least 12 hours prior to application. Always make sure that the material is homogenous, shake well. At temperatures below 10°C crystallisation may occur, however after heating (indirect heat) and mixing the liquid is restored to its original quality.

Specification

Appearance	Yellow liquid
Viscosity at 25°C Brookfield DV11 spindle no.2 at 60 rpm	450-600 cps
Specific gravity	1.1 at 25°C
Elongation	>34%
Bond strength	>0.28N/mm ²

Packaging

5kg, 20kg and 25kg metal drums.

Storage

LamFlex 102 must be stored above 10°C and below 35°C in dry conditions.

Shelf life 12 months in original unopened packaging when stored correctly.

Health and Safety

Always read the Health and Safety Data Sheets before use.

Avoid skin and eye contact.

Avoid inhalation of vapours.

Wear safety glasses, gloves and overalls.

Test Results

Ratio+	Cream time seconds	Rise time seconds	Foaming ratio	Gel condition
1:1	40	98	3	HR foam
1:2	35	90	2	HR foam
1:3	35	110	4	HR foam
1:4	15	120	7	HR foam
1:5	30	150	6	Tacky foam*

+Ratio between water and LamFlex 102 Resin
 *The foam fully cures in 24 hours

The gel time is also dependant on the temperature of the LamFlex 102 and the ambient temperature. Mixing ratio 1:1

Temp °C	Cream time seconds	Rise time seconds	Foaming ratio	Gel condition
10	50	140	2	HR foam
20	40	100	2	HR foam
25	40	98	3	HR foam
30	25	90	3 1/3	HR foam

HR = Highly Resilient
 All test performed at 25°C and 55% relative humidity

Cream time The length of time before foaming reaction starts.
 Gel time The length of time to complete the foaming reaction.
 Tack free time The length of time to fully cure.

Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product, as no warranty is given or implied in connection with any recommendation or suggestions made by us or our Representatives, Agents or Distributors. The information in this data sheet is effective from the date shown and supersedes all previous. Please check with your local Lambert office to confirm that this is current issue

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