Technical Datasheet

FLEX PU-2K

Two-component, polyurethane joint sealant

Description

FLEX PU-2K is a two-component joint sealant, based on polyurethane resins. When mixed, the two components are vulcanised to an elastic and cohesive mass.
The sealant has excellent UV resistance and shows thermal stability (it contains UV stabilizers and antioxidants).
Available in two types:

- **FLEX PU-2KV** for vertical surfaces.
- **FLEX PU-2KH** for horizontal surfaces.

Fields of application

FLEX PU-2K is suitable for sealing vertical and horizontal concrete joints in buildings and civil engineering and hydraulic works (irrigation canals, water supply systems, tanks, airport runways, etc.). FLEX-PU 2K is fuel and oil resistant. It has been tested according to EN 14187-4: Determination of the change in mass and volume after immersion in test fuels and liquid chemicals.

Technical data

Uncured sealant

Density at +23°C:	1.46 g/cm^3
Application temperature:	+5°C - +40°C
Service temperature:	-40°C - +90°C
Pot life:	25-90 min
Vulcanization rate:	1-5 days

Cured FLEX PU-2KV

Tension at 100% extension (DIN EN 53504):	0.40 N/mm^2
Tensile strength at break (DIN EN 53504):	0.90 N/mm^2
Elongation at break point (DIN EN 53504):	400%
Hardness (Shore A):	25
Movement capability:	+/-25%
Recovery 100% extension:	90%
Resistance to flow (+23°C): (EN ISO 7390)	0 mm

Cured FLEX PU-2KH

Tension at 100% extension (DIN EN 53504):	0.35 N/mm^2
Tensile strength at break (DIN EN 53504):	0.90 N/mm^2
Elongation at break point (DIN EN 53504):	450%
Hardness (Shore A):	18
Movement capability:	+/-25%
Recovery 100% extension:	90%

Directions for use

1. Substrate preparation

- The maximum anticipated joint deformity, which depends on the length of the structural elements, the expansion co-efficient of the substrate and the maximum anticipated temperature variation during the year, should not exceed 25-30% of the original width of the joint. Ideally, it is recommended that the minimum joint width should be no less than 1.0-1.5 cm and the maximum no more than 5 cm. However, it can be used in applications where the joint width is up to 8 cm. The sealing depth can be adjusted to 50% of the joint width, but should be at least 1.5 cm.
- The joint sidewalls need to be thoroughly cleaned from loose particles, dust, etc., by blowing with compressed air.
- When necessary, the joint sidewalls are primed with PRIMER-PU 100 to reinforce the adhesion of the sealant.
- When necessary, the sealing depth is regulated with CELLUFILL (backing rod from expanded polyethylene). This way, the sealant does not adhere to the bottom of the joint and is thus free to move, following the expansion-contraction movements of the joint.

FLEX PU-2K

2. Application

- The two components, packaged at a fixed ratio by weight, need to be thoroughly mixed with the use of a proper mixer, e.g. a helical spiral mixer attached to a drill. Mixing should continue until the mixture is completely homogenized. Since the two components are of different color (A: white - B: black), the homogenization can be visually checked (when the mixture obtains a homogeneous grey color, without darker or lighter spots or streaks, mixing is complete).
- The mixed sealant is applied into the joint by means of a special gun or spatula (for minor applications).
- The surface of the uncured sealant is smoothed with a spatula, so as to form a concave meniscus.

Consumption

1.45 kg/l of joint volume.

Packaging

FLEX PU-2K is supplied in packaging (A+B) of 5 kg, with components A and B having a fixed ratio by weight.

Shelf life – Storage

Shelf life is 9 months, in dry and frost-free conditions.

Remarks

Application should be avoided in case of rain or at temperatures above +5°C or below +40°C.

ISOMAT S.A.
BUILDING CHEMICALS, MORTARS & PAINTS
HEADQUARTERS – THESSALONIKI, GREECE
17th km Thessaloniki – Ag. Athanasios Road
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece
T +30 2310 576000
www.isomat.eu e-mail: support@isomat.eu

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 05.08.2024