MONNELI ELASTOSEAL PU

Two Component Polyurethane Sealant

Product Description

High-performance, elastomeric, chemically-curing, multi-purpose Polyurethane sealant. When cures it forms an elastic, joint sealant with high mechanical strength, abrasion resistance, and with high extensibility to withstand long-term abuse and dynamic movement. ELASTOSEAL PU is produced in two grades.

ELASTOSEAL PU-PG, a self-leveling pouring grade for horizontal joints and ELASTOSEAL PU-GG, a thixotropic gun grade for vertical joint applications.

Uses

ELASTOSEAL PU is Ideal for filling and sealing expansion joints at parking ramps, decks, pavements, precast joints, concrete bay joints, curtain walls, expansion wall joints, car parking slabs, industrial floors, warehouses and areas with forklift trucks movement, commercial and residential buildings, balconies, aircraft and cargo areas, exterior insulation walls, flexible seals around pipe work, manholes, basins, tanks and around swimming pool area (not immersed in water).

ELASTOSEAL PU is used on most kind of substrates such as; concrete, masonry, aluminum, brick, marble, granite, stucco, insulation walls and stone surfaces.

Advantages

- Excellent wear and chemical resistant
- High penetration resistant
- High adhesion
- Available in variety of colors
- Non-staining, tack free surface
- High flexibility and suitable for all climates
- For internal and external application

Instruction for Use

Surface Preparation

The substrate must be clean, dry, sound and free of any oil, grease or in compatible sealers, paints or coatings that may interfere with adhesion. Any coating that can not be removed must be tested to verify adhesion of sealant or determine an appropriate primer.

New concrete or cementitious surfaces should be allowed to cure and have moisture content not exceeding 5%.Old concrete should be cleaned from previously sealed joints. Remove all old materials and clean by sandblasting or sawing to sound, virgin concrete for optimum sealant performance.

Priming

In normal application ELASTOSEAL PU can be applied without the need of primer. For floor application, it is strongly recommended that joint surface should be primed with single component Urethane Primer SEALPRIME.

The substrates should be dry before applying primer. Prime the sides of prepared joints with soft brush. Primer should be applied in thin uniform film. Allow to become tack free before applying the sealant. In order to keep the joint edges clean, use masking tape on the joint sides and remove immediately after sealant application has finished.

Mixing

Mix and use one complete unit at a time. ELASTOSEAL PU is supplied as base / hardener combined unit. Pour the hardener (Component B) into the base (Component A) pail and mix thoroughly with a slow speed drill (300-500 rpm) fitted with a flat bladed paddle for 8-10 minutes till a uniform color and consistency is achieved.

Scrape down the sides as much as possible using a pallet knife and avoid lifting the mixing paddle out of material to minimize entrapment of air.

Application

Apply ELASTOSEAL PU immediately after mixing by pouring directly into the joint (in case of PG grade) or by using a professional caulking gun with consistent, positive pressure to force sealant into the joint (in case of GG grade). Fill the joints from the bottom up to the exterior face, avoiding bridging which may form air voids.

Use sealant tool to create a concave joint shape to achieve maximum adhesion on the joint side. DO NOT use soapy water or other liquids when tooling.

For application on marble, granite or natural tiles, it is recommended to apply a sealant sample to check the effect of color on tiles.

Joint Design

ELASTOSEAL PU may be applied to joints between 6 and 40 mm. The width of joints should be designed for a maximum of ± 25% movement at the time of installation.

For joints up to 13mm width, depth should be equal to the width, while for joints wider than 13mm the depth of the sealant should be ½ the width of the joint.

To control joint depth, use CORDOFLEX closed cell polyethylene backer rod, vertical joints only. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three sided adhesion.

Cleaning

All Clean tool with SOLVENTE 10 promptly before material hardens. Cured material must be mechanically removed.

Recommendations

- Do not allow sealant to come in contact with alcohol, solvents, silicon or polysulfide sealant during cure.
- Should not be used for continuous immersed joints in water.
- Sealant joint movement should not exceed
- ± 25% of joint width when installed in a 2:1 width to depth ratio.
- Maximum application temperature is 40°C.
- Do not apply to damp or wet substrates.
- Lower temperature will extend rates of cure.
- Do not apply any top coating on the surface of uncured sealant.

Technical Data

Properties	Result Pouring Grade	Result Gun Grade
Mix appearance	Self leveled	Thixotropic
Color	Grey, light grey, off white & beige. Special colors are available upon request	Grey, light grey, off white & beige. Special colors are available upon request
Movement capability, % (ASTM C719)	± 25	± 25
Hardness, shore A (ASTM D2240)	35	30
Elongation, % (ASTM D412)	300	230
Shringkage	Nil	Nil
Tack-free time, hours (max. 72 hrs) ASTM C679	24 hours	24 hours
Stain and color change (ASTM CS10)	None	None
Extrusion rate and application life (ASTM C603)	Pass	Pass
Bond durability on concrete (ASTM C719)	Pass	Pass
Service temperature	from -5 to +80°C	from -5 to +80°C
Workable time at 25°C	45 minutes	45 minutes
Time to finish curing	7 days	7 days
Resistance to chemicals	Good	Good

All values are subject to 5-10 % tolerance

Applicable Standards

- ASTM C920, Type M, Grade P & NS
- Federal Specification TT-S-00227E, Type I & II, class A
- Corps of Engineers CRD-C-506

Consumption

The approximate linear meter sealant consumption per liter can be estimated from the following formula:

$$\text{Sealant Consumption per linear meter (liter)} = \frac{W \times D}{1000}$$

Where: W = Joint Width (mm), D = Joint Depth (mm)

Packaging

ELASTOSEAL PU-PG available in 4 liter kit.

ELASTOSEAL PU-GG available in 2.5 liter kit.

Storage

Store the product in dry closed place with temperature between 10 to 25°C. Storage above this temperature may reduce shelf life. The product maintains its stability for 12 months.

Health & Safety

Avoid contact with skin & eyes. During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water.

In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

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