

MEGASEAL PU2

Two Part Highly Flexible Polyurethane Sealant

Description:

MEGASEAL PU2 is a two-part, elastomeric, high performance polyurethane joint 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. It is used to seal and caulk both moving and non-moving joints and can be applied on variety of surfaces.

MEGASEAL PU2 is produced in two grades self levelling pouring grade for horizontal surfaces and gun grade for vertical applications.

Uses:

MEGASEAL PU2 can be applied on many surfaces such as concrete, masonry, aluminum, granite, marble and used in different applications including:

- Car parking joints, control construction joints, expansion joints, isolation joints in floors and pavements.
- Joints in precast concrete, curtain walls.
- Industrial floors, warehouses and areas suffering with trucks or forklifts movements.
- Pharmaceutical and food processing plants.
- Concrete expansion and control joints.
- Manholes around swimming pools and water features
- Perimeter caulking around windows and door frames.

Advantages:

- Two component, chemically cured faster than most one-part sealants.
- Self-levelling consistencies for horizontal applications.
- Thixotropic paste for vertical applications.
- Excellent weathering properties.
- Remains flexible at low temperatures.
- Elastomeric sealant absorbs $\pm 25\%$ movement.
- Priming is not required on most substrates.
- High abrasion resistant.

- May be used as an adhesive between materials having different coefficients of thermal expansion.
- Excellent adhesive properties allow for use in totally submersible applications.
- Offers good resistance to chemical attack.

Instructions for Use:

Surface Preparation:

Proper surface preparation is essential to grant a good bonding between the sealant and the substrate. All the side surfaces of the joint must be dry, smooth, clean, free from dust, laitance or loose materials. To ensure proper cleaning, it is highly recommended to use compressed air or a wire brush in order to remove further dirt, oil stains and other contaminants. New concrete or cementitious surfaces should be allowed to cure and have moisture content not exceeding 4%.

Surface defects at edges and corners of the joints should be repaired using appropriate MATEX Repair Products. Allow the repairing product to cure as specified in the data sheet. Ensure that the side surface of the joint is totally dry before applying the primer. On sound, clean, well prepared totally dry joint surfaces, primer is not required. In case that primer is needed, use MEGAPRIME for porous surface and MEGAPRIME SP for non-porous surfaces. Apply the primer to both side of the joint faces prior to installation of backer rod or bond breaking. Apply a thin coat of primer as too much primer may act as bond breaker. Allow the primer to be tack free prior to application of the sealant.

Joint Design:

MEGASEAL PU2 may be applied for joints to accommodate a movement of $\pm 25\%$ in a width between 6 and 35 mm. Width of joints should be twice as much of depth for joints greater than 13 mm in width. Width and depth should be equal for joints less than 13mm in width. To control joint depth, use MEGASEAL CORD closed backer rod. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion.

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Mixing:

MEGASEAL PU2 is a two component system that must be mixed at the time of application. Mix the contents of component A (Base) with a low speed mixer for one minute to homogenize the content of the container. Slowly add the contents of part B (Hardener) to Part A (base) container while mixing in progress. Mix the materials thoroughly with low speed mixer (200-300 rpm) for an interval of 2-3 minutes confirming a homogenous, color consistent, lump free mixture is reached. Scrape down sides as much as possible during mixing and avoid lifting the mixing blade out of material to minimize entrapment of air.

For pouring grade, case allow the material to rest for 3 minutes before application to release entrapped air. Knock by wooden spatula on sides of the container to assist in release of air bubbles.

Application:

Apply a masking tape to the sides of the joint before priming, to preserve the joint edges from contamination. Ensure that the expansion joint filler or backing rod is tightly packed and avoid any gaps or spaces at the base of the sealing slot, prior to positioning of the bond breaker tape. The backer rod shall be of diameter which is at least 20% larger, but not greater than 33% of the joint width to ensure that it remains in compression. The use of a bond breaker tape is not required in expansion joints containing polyethylene foam joint filler. For construction or contraction joints, polyethylene bond breaker tape must be used.

Apply the mixed product by pouring from the pail directly into the joint. Ensure continuous filling for the joint and do not allow gaps during the application. Allow the sealant to settle and remove the excess from the sides of the joint then tool the surface to get a smooth finish. Do not use soapy water or other liquids when tooling. Ensure the masking tape is removed immediately on completion of joint finishing works before the sealant cures.

Standards:

- ASTM C920, Type M, Grade P & NS.
- Federal Specification TT-S-00227E Type I & II, Class A

TECHNICAL PROPERTIES	
Color	Grey, white, beige
Pot Life @ 25°C	90 minutes
Cure Time	2 mm/24 hrs
Tensile Strength (ASTM D412)	1 Mpa
Movement Capability	25%
Elongation (ASTM D412)	>200% Ultimate
Shore A Hardness (ASTM D2240)	35
Shrinkage (ASTM C157)	NIL
Compression Set (ASTM D395)	3%
Chemical Resistant	Good
Service Temperature	-5°C to +80°C

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Packaging:

MEGASEAL PU2 PG is available in 4 liter two parts metal containers kit.

MEGASEAL PU2 GG is available in 2.5 liter two parts metal containers kit.

Consumption:

The approximate linear meter consumption per liter can be determined from the following formula

$$\text{Sealant consumption per linear meter} = \frac{W \times D}{1000}$$

W: joint width (mm), D: Joint Depth (mm)

Storage Conditions:

Store in original packing in dry conditions away from direct sunlight. Temperature of storage area not to exceed 25°C.

Shelf Life:

MEGASEAL PU2 can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

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Cleaning:

Clean tools immediately with ARMOSOLVENT after application. Hardened materials can only be removed mechanically.

Remarks:

- Do not apply on damp or contaminated surfaces.
- Joint movement should not exceed $\pm 25\%$ of joint width when installed in 2:1 W:D ratio.
- Paint compatibility with sealant should be tested prior to painting.
- Joint depth should not exceed the width.

Health and Safety:

- Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapor or spray mist.

FIRST AID:

Eyes:	In the event of accidental splashes, flush with warm water and seek medical advice.
Skin:	Wash skin thoroughly with soap and water
Inhalation:	Remove to fresh air, keep patient rested
Ingestion:	Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to MEGASEAL PU2 Material Safety Data Sheet.

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