Technical Data Sheet

MEGASEAL TPU

Elastomeric Pitch Polyurethane Joint Sealant

Description:

MEGASEAL TPU is a two component pitch extended, polyurethane based joint sealant that cures to provide elastomeric, durable watertight resilient sealant, with excellent recovery properties and superior resistance to climate conditions, most general chemicals.

It is produced as black sealant in pouring grade to suit horizontal applications.

Uses:

- Sealing floor joints of heavy wheeled, traffic areas and places subjected to heavy industrial use such as factories, food processing areas, warehouses, maintenance facilities, airplanes hangers and air fields.
- Sealing movement joints in building, subways, retaining walls, sewage treatment plants, sea water and coastal projects.
- Suitable for areas subject to fuel and chemical spillage.
- Suitable for joints in long strip flooring and other large internal areas like car parking decks, warehouses, etc.

Advantages:

- Extremely resistant to chemicals and high grade hydrocarbon fuel
- Permanent water tight sealant
- Load bearing for support under heavy wheel load
- Resists to degradation in sewage treatment
- Suitable of extreme weather conditions
- Has a long-lasting characteristic
- Excellent flexibility and movement tolerance

Surface Preparation:

Joint 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, and 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 surfaces 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 TPU may be applied for joints to accommodate a movement of ±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.

Instructions for Use:

MEGASEAL TPU 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

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rpm) for an interval of 4 minutes confirming a homogenous, color consistent, lump free mixture is reached. Scrape down sides as much as possible during mixing and avoid lifting mixing blade out of material to minimize entrapment of air.

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. Initially fill 2/3 of the highest and tool properly to fill the irregular areas inside the joint and to allow the entrapped air to escape. Then Apply extra material higher than the edge of 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.

Standards:

- ISO 9047
- US Federal specification TT-S-00227E, Type 1 Class B
- ASTM D412, ASTM D2240

TECHNICAL PROPERTIES	
Appearance	Black Paste
Specific Gravity	1.38 ± 0.03 kg/lit
Pot life	60 minutes at 25°C
Application Temperature	+5°C to 40°C
Tack Free Time	24 hours at 30°C
MAF (%)	25
Shore "A" Hardness (ASTM D2240)	35
Tensile Strength (MPa) (ASTM D412)	1.2
Elongation (%) (ASTM D412)	>250
Tear Strength (MPa)	2.8
Chemical Resistance	Resistance to fuels, lubricants, hydraulic fluids, dilute acids, alkalis
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.

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)

Packaging:

Available in 4 Ltrs. two parts kit

Storage:

Keep the product in dry and covered shed. Exposure to extreme temperature and humidity results in the deterioration of the product's efficiency and reduces its shelf life.

Cleaning:

Clean the used tools with ARMOSOLVENT immediately after completing the job and before the product dries.

Recommendation:

- Do not apply on damp and contaminated surfaces.

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- Sealant joint movement should not exceed ± 25% of joint width when installed in a 2:1 width to depth ratio
- Substrate temperature should not be less than 5°C.
- For existence of specific chemical compound, contact Matex for technical advice
- Where hydrostatic pressure exists, do not use foamed back up strips. Bond breaking tapes must be used instead.

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 vapour 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 TPU Material Safety Data Sheet.

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