MAXFLEX[®] PU

Two Part, High Performance, Polyurethane Based Joint Sealant



Maxflex[®] PU cold applied, two part polyurethane sealant is designed for joints in concrete paved areas.

The capability of accommodating cyclic movements is retained by Maxflex[®] PU throughout extremes of temperature conditions.

Maxflex[®] PU is resistant to fuel, oil and hydraulic fluid spillage, will not harden in cold weather nor become excessively soft or pick up dirt in hot conditions. Maxflex[®] PU has high durability and long service life which significantly reduces maintenance costs.

Uses

For sealing and maintenance of horizontal joints in concrete roads, concrete runways and hard standings. The excellent fuel resistance of Maxflex[®] PU makes it particularly suitable for sealing areas where fuel and oil spillage might occur such as:

- Aircraft fuelling areas
- Oil terminals
- Garages
- Parking and cargo areas
- Docks and harbours
- Warehouses

Benefits

- Cold Applied- No heating equipment required
- Fuel, oil and hydraulic fluid resistant
- Self-levelling
- Tough rubbery seal
- High Performance- Less maintenance

Technical Support

Thermax offers a comprehensive range of high performance, high quality, concrete repair and construction products. In addition, Thermax offers technical support service to specifiers, end users and contractors, as well as onsite technical assistance in locations all over the country.

Standards Compliance

Maxflex[®] PU complies with U.S. Federal Specification SS-S200 E: 1984 British Standard 5212:1990- types N, F and FB

Specification

Where so designated on the drawing, joints are to be sealed using Thermax Maxflex[®] PU, pavement sealant manufactured by Thermax to BS 5212: 1990 and U.S. Federal Specification SS-S 200 E:1984. Joints shall be prepared and the sealant mixed and applied in accordance with the manufacturer's current data sheet.

Design Criteria

Maxflex[®] PU has a movement accommodation factor of 25% in butt joints. In designing joint spacing and dimensions, consideration should be given to the likely uneven distribution of movement. To ensure the sealant operates within its stated movement capacity of 25%, the width of sealing slots should be designed in accordance with the recommendations of BS 6093. In trafficked areas the expansion joint width should not generally exceed 30 mm- for wider joints consult local Thermax office.

Joint Depth: In trafficked areas the sealing slots should be constructed so that at no time during the anticipated operating cycle of the joint will the sealant protrude above the surface of the concrete pavement. It is necessary to recess the level of the sealant 5 to 8 mm below the pavement surface, dependent on the time of year and temperature prevailing at the time of sealing. The width to depth ratio of the Maxflex[®] PU seal should be 1:1 to 1½:1 subject to a minimum 10 mm depth of sealant(example, contraction joint: 15 mm wide x 13 mm depth; expansion joint: 25 mm wide x 20 mm depth).

Properties

Form	Two part compound
Base Compound	Viscous Liquid
Curing Agent	Liquid
Colour	Black
Movement	Butt joints 25%
Accomodation Factor	
(BS 6093)	
Physical or Chemical	Chemical Cure
Cure	
Setting Time	After 12 to 16 hours at
	35°C
	Maxflex [®] PU will be tack
	free and can accept
	traffic.





Full Cure	5-7 days at 25⁰C
Application	To avoid unacceptably
Temperature	proplonged cure times,
	do not apply at
	temperatures below 5°C
Hardness Shore 'A' at	10+2
25°C	
Solid Content	96+2%
Pot Life	Min. 30 minutes at 25°C

Chemical Resistance to Occasional Spillage

Aviation Fuels	Resistant
Hydraulic Fluids	Resistant
Skydrol	Resistant
Kerosene	Resistant
Petrol	Resistant
Diesel Fuels	Resistant
Synthetic Oils	Resistant
Mineral Oils	Resistant
White Spirit	Resistant
Mild Alkalis	Resistant
Dilute Acids	Resistant

All the above properties have been determined by laboratory controlled tests and are in excess of those expected in practice. Nevertheless, success in use will be determined by the implementation of good housekeeping practices.

Maintenance

No special requirements. Any damage identified during normal inspections should be repaired or replaced as appropriate.

Instructions for Use

Joint Preparation

Joint sealing slots in concrete should be accurately formed and must be dry, sound, clean and frost free. Remove all dust and laitance by grit blasting or grinding. Avoid polishing the joint sides when grinding. The prepared sealing slot should be blown out with dry, oil free compressed air. Ensure that any expansion joint filler is tightly packed in the joint and at the required depth to provide the seal dimensions specified. Before sealing, insert a bond breaker caulked tightly into the base of the sealing groove to prevent the sealant from adhering to the base of the slot.

Priming

Prime sealing slot surfaces with Maxflex[®] PUPR using a clean dry brush. Maxflex[®] PU must be applied between 30 minutes and 2 hours after priming, depending on climatic conditions. Maxflex[®] PU must be applied when the primer has become touch dry, that is after the evaporation of the solvent, but before the primer film has completely reacted.

If the primer film has become completely tack free, the surfaces must be re primed before applying the sealant.

If the primed areas are left unsealed overnight the primer film must be removed by grit blasting or grinding and the joint interfaces re primed. Therefore, avoid priming more work than can be sealed within the time-scales above.

Avoid over application of Maxflex[®] PUPR, as this may cause puddles of primer to lie at the base of the sealing slot.

Mixing

Drain totally the contents of the tin containing the curing agent into the large base component tin. Using a hand held, slow speed drill (400 to 500 rpm) fitted with a Thermax paddle blade stirrer, mix for approximately one minute, stop the mixer and scrape around the top of the tin to remove any remaining curing agent. Continue mixing for a further 3 minutes until the material is thoroughly mixed.

Application

When mixed, the sealant may be loaded into a Sealant Gun after removing the nozzle and cap and pulling back the plunger rod. The nozzle cap is then replaced ready for application. In wider joints of 25 mm and above, the mixed sealant may be poured directly from the tin by bending the side to form a pouring lip. Apply mixed sealant into the sealing slot so that the finished level of the seal is recessed below the trafficked surface as specified. BS 5212:1990 Pt. 2 sets out a code of practice for the application and use of joint sealants for concrete pavements.

MAXFLEX[®] PU

Cleaning

Clean equipment immediately after use with Cleaning Sol. Remove mixed Maxflex[®] PU from the hands with industrial hand cleanser.

Health & Safety Instructions

Some people are sensitive to silicon resins so gloves and a barrier cream is recommended during application. If contact with skin occurs remove immediately and wash with plenty of water. If contact with eyes occurs wash with water and seek medical advice. If swallowed seek medical advice, do not induce vomiting.

Storage

Shelf Life

12 months if Maxflex[®] PU is stored in dry and cool conditions in unopened containers.

Packing

2.5 ltr. pack

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