MAXFLEX ™ PS

Two Part Polysulphide Sealant

MAXFLEX PS is a two part joint sealant based on a liquid polysulphide polymer. It is supplied as a 2.5 L pack containing a base component and curing agent in the correct proportions which, when mixed together, cure to form a tough rubber-like material. When cured, the sealant exhibits excellent adhesion to most surfaces including concrete, aluminum and stainless steel. Priming is recommended for porous surfaces and for some specific surfaces and applications.

MAXFLEX PS is available in two grades. Gun grade for general applications and Pouring grade for joints in horizontal surfaces.

MAXFLEX PS is particularly recommended for use in high rise buildings and other applications where access for subsequent maintenance will be difficult and the risk of early movement failure must be minimised. It is also suitable for sealing joints in subways, basements, retaining walls, reservoirs and brickwork joints.

Joint size

MAXFLEX PS may be applied to horizontal joints between 5 and 50 mm wide. Joints which are excepted to experience cyclic movements should be designed to an optimum width: depth ratio of 2:1 subject to the overriding recommended minimum sealant depths set out below :

5 mm for metals, glass and other nonporous surfaces.10mm for all porous surfaces;

20 mm for trafficked joints and those subject to hydrostatic pressures.

To ensure that the sealant remains within its stated movement capacity (25% MAF) the width of the designed sealing slot should be in accordance with the recommendations of BS:6093:1981 6.2.2 and 6.2.6.

Uses

MAXFLEX PS is a two part sealant based on a liquid polysulphide polymer. This is available in two grades Gun grade and pourable grade. MAXFLEX PS PG is a pourable version designed for use in horizontal joints. Adhesion is excellent to most common building substrates. The product is particularly recommended for sealing horizontal structural expansion joints in most civil engineering structures like building superstructures, subways, basements, floors and reservoirs.

Benefits

- Forms a tough elastic rubber-like seal.
- Accommodates continuous and pronounced cyclic movement.
- Excellent adhesion to most common substrates.
- High resistance to ageing influences, physical damage and climatic extremes.

Standards compliance

British Standard BS : 4254 :
1983 IS 12118 (PT 1 & 2) - 1987
Product tested, certified & Approved by IRMRA as per BS:4254

Technical Support

The Company provides a technical advisory service supported by a team of specialists in the field.

Properties

Form	:	Two-part Compound Base : paste Curing agent : paste
Colour(Mixed material)	:	Grey
Flash point	:	Over 65^{O}C
Solids content	:	100%
Density	:	1.60 - 1.65 Kgs/ltr
Curing change	:	Chemical cure
Application Temperature	:	5^{O} C to 50^{O}C
Pot life	:	Min 2 hrs at 25^{O} C
Setting time	:	72 hours at 5 ^{O}C 36 hours at 15^{O} C 18 hours at 25^{O} C
Cure time	:	4 weeks at 5^{O} C 2 weeks at 15^{O} C 1 week at 25 ^{O}C
Water immersion	:	MAXFLEX PS must be fully cured before permanent immersion in water.
Hardness Shore A	:	8-20 @ 25 ^{O}C
Flammability	:	Burns but does not readily support combustion.

Chemical resistance to occasional spillage

Dilute acids	: Resistant
Dilute alkalis	: Resistant
Petrol	: Resistant
Aviation fuels	: Resistant

MAXFLEX™ PS

White spirit	: Resistant
Chlorinated solvents	: not resistant
Aromatic solvents	: not resistant
Dilute oxidising acids	: not resistant
Biological	: MAXFLEX PS has been evaluated for resistance in micro-biologically active situations and has been shown to have resistance to aerobic conditions.
Movement accommodation factor (MAF)	: 25% butt joint, : 50% lap joints (see also under'Joint size)
Loss of mass (%) (Heat ageing @ 70^{O}C)	: <5
Sun lamp exposure test	: Passes
Staining test	: Passes

Specification clauses

Joints shall be sealed using Thermax MAXFLEX PS, two part, polysulphide sealant, manufactured by Thermax to BS 4254 -1983. Joint shall be prepared and the sealant mixed and applied in accordance with the manufacturer's current data sheet.

Instructions for use

Joint preparation

The joint surfaces must be thoroughly dry, clean and frost free. Remove all dust and laitance by rigorous wire brushing, grinding or grit-blasting. Remove all rust, scale and protective lacquers from metal surfaces. Remove any oil or grease with Cleaning Sol. Any expansion joint filler must be checked ensure it is tightly packed and no gaps or voids exist at the base of the sealing slot, before positioning a bond breaker. For construction or contraction joints breaker or back up tape should be used. Where hydrostatic pressure exists, only bond breaking tapes must be used not foamed back-up strips. Where a particularly neat finish is required, mask the face edges of the joint before priming and remove immediately after tooling is completed.

Priming requirements

The use of a Primer is always required on porous surfaces. On non-porous surfaces a Primer is not normally required except where glass or glazed surface are to be permanently immersed in water.

MAXFLEX PSPR

MAXFLEX PSPR is a Primer for poly sulphide sealants. It is a one-part clear liquid for brush application, supplied in125 ml tins. MAXFLEX PSPR can be used on concrete stone, brick work, timber and unglazed edges of ceramic tiles, glass and Aluminium. One thin coat should be applied and allowed to dry until tack free before sealing. (Normally upto 30minutes). Excessively porous surfaces may need more than one coat. Using a clean, dry brush, ensure complete coverage, but avoid over priming resulting in an excess of primer in the base of the joint or application beyond the joint faces. The mixed MAXFLEX PS must be applied when the primer is tack free, that is after the evaporation of the solvent but before the primer film has completely reacted. After 30 minutes the surface must be re-primed before applying the sealant. Iron and steel must be protected with an anti-corrosive primer prior to sealing.

Mixing Gun grade : Both the base component and curing agent are supplied ready for mixing in a single tin. Mix thoroughly using a slow speed drill (300-500 rpm) fitted with a paddle stirrer for a full 5 minutes. Only thorough mixing will result in proper curing. In cold weather MAX FLEX PS mixes more easily if stored overnight at room temperature. Immediately after mixing, load the sealant into the gun by means of Gun Filling Device and apply to the joint.

Pouring grade : MAXFLEX PS poly sulphide sealant pouring grade is supplied in two separate containers. The small container contents should be poured into the other tin, and mixed as per the gun grade instructions. The pouring grade may be poured directly into horizontal joints or loaded into the Gun for application to horizontal joints less than 15mm wide.

Finishing : MAXFLEX PS poly sulphide sealant shall be tooled to a smooth finish. A minimum of surface lubricant such as dilute detergent solution or white spirit may be used to assist the process. Any masking tape should be removed immediately after tooling. Normally, joints in MAXFLEX PS polysulphide sealant will be flush and unpainted.

Maintenance

No special requirement, damage should be repaired if and when it occurs.

Cleaning equipment

Clean equipment immediately after use with Cleaning Sol.

Health and Safety instructions

MAXFLEX PS, polysulphide sealant is poisonous. The curing agent consists of a heavy metal based oxide. Skin contact shall be avoided. Impervious rubber or PVC gloves and eye protection shall be worn. Hands shall be thoroughly washed with soap and water before eating or smoking. Cured sealant should not be burnt off due to the generation of toxic fumes. Empty containers must be collected for careful disposal and not left lying about.

MAXFLEX™ PS

MAXFLEX PSPR is highly flammable liquid. Flash point is high. It shall be stored away from heat. and shall not be used near a naked flame. Skin contact shall be avoided. Eye protection and impervious rubber or PVC gloves shall be worn. Splashes must be washed off immediately. Prolonged breathing of vapour shall be avoided. Hands shall be washed thoroughly before eating or smoking. In the case of eye contact, medical attention shall be sought immediately.

Storage

MAXFLEX PS, polysulphide sealant shall be stored in cool, dry conditions in original tightly sealed containers.

Storage life : 12 months in original containers in dry conditions within the range 5^{O}C to 27^{O}C

Packing

MAXFLEX PS (Both Gun Grade and Pourable Grade)	2.5 L pack
MAXFLEX PSPR	125 ml pack

Coverage

Guide to MAXFLEX PS Qquantities

Joint size in mm	litres/meter run	meter run / 2.5L pack
5 x 5	0.025	100.00
10 x 5	0.050	50.00
10 x10	0.100	25.00
20 x 10	0.200	12.50
15 x 10	0.300	8.33
20 x 20	0.400	6.25
40 x 20	0.800	3.12
40 x 25	1.000	2.50
40 x 30	1.200	2.08
40 x 40	1.600	1.56
50 x 25	1.250	2.00
50 x 30	1.500	1.66
50 x 40	2.000	1.25
50 x 50	2.500	1.00

Technical data : ancillary materials

Properties	MAXFLEX PSPR
Flash Point	10 ^{O}C
Density	80 kg / litre
Storage life	6 months
Coverage	60 m^2 /litre
Application temperature	5 to 50^{O}C
Drying time	2 to 5 minutes
Pack size	0.125 kg

Other segments :

● Concrete Admixtures ● Surface Treatments ● Grouts & Anchors ● Repair & Rehabilitation ● Protective Coatings ● Industrial Flooring ● Waterproofing ● Sealants ● Adhesives ● Cement Grinding Aids

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