

Fosroc® Thioflex® 600 Pouring Grade



constructive solutions

Fuel Resistant, multi-component, pouring grade, polysulphide joint sealant for horizontal movement joints

Uses

Sealing horizontal movement joints in building and civil engineering structures, including roads, floors, airfields and subways.

Advantages

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

Description

A multi-component joint sealant, based on a liquid polysulphide polymer, which when mixed and applied, cures to form a tough, rubber-like seal. The cured sealant exhibits excellent adhesion to most primed surfaces including concrete, aluminium and stainless steel.

Thioflex 600 Pouring Grade for joints in horizontal surfaces is supplied in grey colour only in 4 and 16 litre packs with the base and curing agent in separate tins.

Thioflex 600 Pouring Grade is recommended for sealing expansion joints and stress relief joints in floors or other horizontal surfaces.

Design criteria

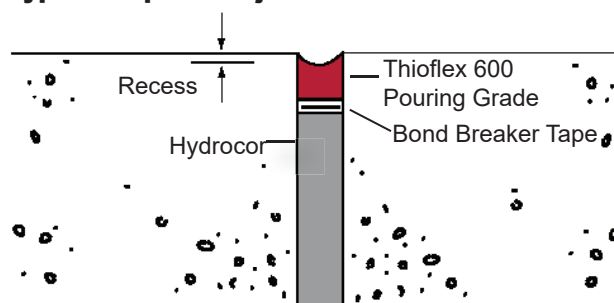
Thioflex 600 Pouring Grade may be applied to joints between 5 and 50 mm wide. Joints which are expected to experience cyclic movements should be designed to an optimum width:depth ratio of 2:1, subject to the overriding recommended minimum sealant depths set out below:

- 5 mm for metals and other non-porous surfaces;
- 10 mm for all porous surfaces;
- 20 mm for trafficable joints and those subject to hydrostatic pressures.

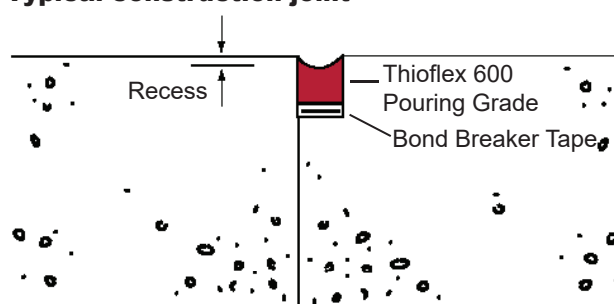
All joints subject to repeated movement should be designed and spaced so that the total movement in tension and compression does not exceed 50% of the joint width at the time of sealing. Total movement in shear should not exceed 50% of joint width at the time of sealing.

All movement joints shall be recessed 2 mm below flush so that during joint contraction the sealant does not protrude above the surface and so become susceptible to damage from traffic.

Typical expansion joint



Typical construction joint



A bond breaker tape is not required in expansion joints containing polyethylene foam joint fillers. For construction or contraction joints polyethylene bond breaker tape or back-up strip must be used.

Properties

Form:	Multi-part component Base: viscous liquid Curing agent: paste
Colour:	Grey
VOC content:	45g / litre
Density:	1.65kg / litre
Movement accommodation factor:	50% total (± 25%)
Physical/chemical change:	Chemical cure
Application life:	2 - 4 hours @ 25°C
Setting time:	72 hours @ 5°C: 36 hours @ 15°C: 18 hours @ 25°C
Cure time:	28 days @ 5°C: 14 days @ 15°C: 7 days @ 25°C
Application temperature:	5 to 50°C
Service temperature:	-30 to 70°C
Hardness shore 'A' @ 25°C:	15 - 23

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Chemical resistance to occasional spillage:

Dilute acids	Resistant
Dilute alkalis	Resistant
Petrol	Resistant
Aviation fuels	Resistant
Diesel fuel	Resistant
Kerosene	Resistant
Lubricating oils	Resistant
Skydrol	Resistant
White spirit	Resistant
Chlorinated solvents	Not resistant
Aromatic solvents	Resistant
Dilute oxidising acids	Not resistant

Application Instructions

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 Fosroc Solvent 10.

Any expansion joint filler must be checked to ensure it is tightly packed and no gaps or voids exist at the base of the sealing slot before positioning a bond breaker tape. A bond breaker tape is not required in expansion joints containing polyethylene foam joint fillers. For construction or contraction joints polyethylene bond breaker tape or back-up strip must be used.

Where a particularly neat finish is required, mask the face edges of the joint before priming and remove immediately after tooling is completed.

Priming

Primer 4: For use on metals and ceramics. It is a one-component chemically active clear liquid for brush or pad application. One thin coat should be applied and allowed to dry for a minimum of 5 minutes prior to sealant application.

Primer 7: A one-component chemically active straw coloured liquid for brush application to concrete, stone, brickwork, timber and unglazed edges of ceramic tiles. Apply an even coat of Primer 7 to the bonding faces of the joint. Excessively porous surfaces may need more than one coat – this is evident where applied primer does not give a smooth, glossy surface when dry. Allow final coat to become touch dry (approx. 1 hour) before application of Thioflex 600 Pouring Grade.

Any primed areas not sealed within 8 hours of primer application will need to be re-primed 1 hour prior to sealant application.

Priming surfaces subject to immersion

Joints subject to water immersion should be primed with Primer 13, a two-component epoxy primer with exceptionally good hydrolytic stability. Mix the two components of the primer by pouring the Hardener component into the Resin component, mix thoroughly for a minimum of one minute by stirring with a spatula, paint stirrer etc. paying attention to the product on the sides of the can.

Apply an even coat of primer by brush onto the bonding faces of the concrete, the base of the joint should have no primer residue present after the primer has been applied, then allow the primer to become touch dry before applying any sealant (typically 1 hour at 23°C). **DO NOT APPLY SEALANT TO TACKY OR WET PRIMER.** The sealant must be applied within 8 hours at normal temperatures - within 3 hours at elevated temperatures (above 30°C). The pot life (usable life) of mixed Primer 13 is 30 minutes @ 23°C and 20 minutes @ 30°C. Any unused mixed Primer 13 should be discarded after the pot life has expired. Allow Primer 13 to become touch dry (approx. 1 hour) before applying sealant.

Note: ceramic tiles with unglazed edges should have those edges primed as noted, except where they are to be permanently water immersed, they should be primed with Primer 13.

Important for all primers

Avoid over priming resulting in an excess of primer in the base of the joint or application beyond faces. **The mixed Thioflex 600 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. If joints are not sealed within 8 hours of primer application, they must be re-primed and allowed to become touch dry as previously stated.

Mixing

Thioflex 600 Pouring Grade is supplied as a Base component and Curing Compound component which is either 1 x 300ml for the 4 litre unit, or 4 x 300ml for the 16 litre unit. Transfer ALL of the Curing Agent component/s into the base component. Mix thoroughly using a heavy duty slow speed drill (300-500 rpm) fitted with a Spiral Stirrer for 5 minutes. Only thorough mixing, including material right at the bottom of the tin, will result in proper curing. In cold weather Thioflex 600 mixes more easily if stored overnight at room temperature. The pouring grade may be poured directly into wide horizontal joints. For application to horizontal joints less than 15mm wide, load mixed product into a suitable gun.

Finishing

Note: Thioflex 600 Pouring Grade is NOT a 'self levelling' material. Release of air bubbles from joints with rough or porous joint faces will be enhanced by tooling the sealant surface with a convex tool. Any masking tape should be removed immediately after tooling.



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Cleaning

Clean equipment immediately after use with Fosroc Solvent 10. Cured sealant can only be removed mechanically or after soaking in Solvent 10.

Limitations

Over-painting of sealants is not recommended because of the inability of paint films to accept movement. However, if required, trials should be carried out to determine compatibility.

Thioflex 600 Pouring Grade should not be used in direct contact with materials containing pitch or bitumen.

Thioflex 600 Pouring Grade should not be used in joints in reservoirs or other water retaining structures which may be subject to high chlorination levels or biologically active conditions.

Supply

Thioflex 600 Pouring Grade is supplied in 4 litre and 16 litre packs

Base of 4 litre pack: FC920400-3.7L

Base of 16 litre pack: FC920416-14.8L

Curing Compound 300ml: FC920401-300ML
(use 1 x 300ml for 4L pack;
use 4 x 300ml for 16L pack)

Primer 4 (250ml): FC965207-250ML

Primer 7 (1 litre): FC965209-1L

Primer 13 Base of 250ml pack: FC965229-125ML

Primer 13 Hardener of 250ml pack: FC965230-125ML

Primer 13 (1 litre pack MTO):

Primer 13 Base of 1 litre pack: FC965229-500ML

Primer 13 Hardener of 1 litre pack: FC965230-500ML

Fosroc Solvent 10 (4 litre): FC600800-4L

Guide to quantities

Joint size (mm)	Litres per metre run	Metre run per 4 litre pack
10 x 10	0.100	40.00
20 x 10	0.200	20.00
20 x 15	0.300	13.30
20 x 20	0.400	10.00
40 x 20	0.800	5.00
40 x 30	1.200	3.20
40 x 40	1.600	2.40
50 x 25	1.250	3.20
50 x 40	2.000	2.00
50 x 50	2.500	1.60

Primer coverage:

1 litre of Primer 4 to 100 litres of Thioflex 600 Pouring Grade.
1 litre of Primer 7 to 30 litres of Thioflex 600 Pouring Grade.
1 litre of Primer 13 to 30 litres of Thioflex 600 Pouring Grade
These are theoretical yields. No allowance has been made for variation in joint width or wastage.

Storage

Shelf life of 12 months in original containers when kept in dry conditions between 5°C and 30°C.

Important notice

A Safety Data Sheet (SDS) is available from the Fosroc website. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.



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