Flexseal PS660

High performance two component polysulphide civil sealant

DESCRIPTION

Flexseal PS660 is a two-part polysulphide sealant which when mixed, cures to form a flexible rubber seal. It has good adhesion to concrete, stone, metals and many other common building substrates.

APPLICATIONS

For sealing structural floor joints in various applications such as:

- Parapet wall joints.
- Joints in metal and concrete sea walls.
- Joints in water retaining structures (including potable water when using gun grade).
- Runway aprons and runways
- Road and tile joints.
- Structural Floor Joints.
- Expansion and construction joints.
- Joints in sewage treatment tanks and sewage treatment facilities.

ADVANTAGES

- Cold applied.
- Good adhesion to concrete, stone, metals and many other common building substrates.
- Available in two grades, gun and pouring grade.
- UV-resistant.
- High movement accommodation factor.
- High service life.
- Hydrocarbon resistant.
- Resistant to chlorinated water.

STANDARDS

Gun Grade:

- BS EN ISO 11600 F 25 LM.
- BS4254:1983.
- BS6920:1996.
- ASTM C920, Type M, Grade NS, Class 25, Use NT, T_2, I & M (with primer).

Pouring Grade:

- BS 5212:1990 Type FB (includes types N & F).
- ASTM C920, Type M, Grade P, Class 25, Use NT, T_2, M.
- SS-S-200E, for bond to concrete after fuel immersion.

TECHNICAL PROPERTIES:

Colour:	Grey
Solid content:	100%
Typical shore A hardness: ASTM D2240	20 ± 5 for Gun Grade
Working life:	40 - 90 min @ 25ºC
Application temperature:	5 to 50ºC
Setting time:	36 - 48 hr @ 15ºC 15 - 20 hr @ 25ºC 10 - 15 hr @ 35ºC
Service temperature:	-40 to 90ºC
*Cure rate:	7 days @ 25ºC in a typical 10 mm x 10 mm joint. At colder temperatures the cure rate will be extended
UV resistance:	Good
Biological resistance:	Resist microbiological active situations
Flammability:	Does not support combustion
Movement Accommodation:	
Butt joints	25% (movement in tension & compression)
Lap joints	50% (movement in shear)
VOC:	≤ 30 g/ltr (comply with LEED)

**for water immersion, Flexseal PS660 should be fully cured.*

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METHOD OF USE

JOINT PREPARATION

The joint surface must be clean, dry and free from dust, oil, grease and any contaminations that could affect the adhesion.

PRIMING

For application over porous surfaces, Flexprime PS100 is recommended to be used to prime the surface. Mix the two component of Flexprime PS100 until a homogeneous liquid is achieved.

Using small brush apply one thin coat at the joint sides and avoid over priming. It is recommended to apply the mixed Flexseal PS660 while the primer is still wet or tacky.

For application over non-porous, highly dense cementitious surfaces (i.e Cempatch S), it is recommend to roughen the surface using sand paper, vacuum/clean the substrate well and use Flexprime Universal to prime the surface. Flexseal PS660 GG should be applied while primer is tacky.

Note: Flexseal PS660 PG is not recommended for use over non-porous, highly dense cementitious surfaces (i.e Cempatch S), for such substrates Flexprime PS660 GG is recommended.

MIXING

Gun grade
The base and curing agent ratio controls the adhesion, strength and durability of Flexseal PS660. The components must therefore be thoroughly mixed. The curing agent and base component are supplied within the same tin and ready for mixing. Mix thoroughly using slow speed drill fitted with proper mixing paddle for 3 minutes. Scrape sides and bottom of the tin and mix again for extra 2 minutes.

Pouring grade
Flexseal PS660 pouring grade is supplied in two seperate tins. the small tin which contains the curing agent should be transferred to the base tin and mix thoroughly as per gun grade above.

APPLICATION

The normal method of application is to fill the mixed sealant into a sealant barrel guns using a heavy duty follower plate. The barrel of the gun is placed over the hole in the centre of the plate. Steady downward pressure and withdrawal of the plunger rod results in the barrel of the gun being filled.

OCCASIONAL SPILLAGE

Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (Spot - test @ 1 hr)

Organic Acids	
Citric Acid 25%	RS
Aqueous Solutions	
Sodium Chloride sat	R
Tap Water	R
Chlorinated Water	RS
Dead Sea Water	R
Solvents	
White Spirit	R
Xylene	R
Toluene	R
Acetone	R
Oils & Fuels	
Brake Fluid	R
Engine Oil	R
Diesel	R
Kerosene	R
Inorganic Acids	
Sulphuric Acid 25%	RS
Hydrochloric Acid 10%	RS
Nitric Acid 10%	RS

R: Resistant
RS: Resistant with slight discolouration
SS: Slight softining

To obtain a neat joint finish, apply masking tape on the top of the joint sides before apply the primer or the sealant. The sealant is then ready for application. The sealant should be extruded firmly into the joint by maintaining an even pressure on the trigger of the gun.

All joint preparation, priming, and sealant application should be carried out in accordance with BS8000, Part 16, the British Standard for the sealing of joints in buildings using sealants.

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FINISHING

The freshly applied sealant should be trowelled to a smooth finish. A small amount of surface lubricant such as diluted detergent solution may be used to help achieve the right finish. Any masking tape should be removed immediately after trowelling while the sealant is still within its working time.

PACKAGING

Flexseal PS660 is available as follows:

Gun Grade	
Flexseal PS660	3.7 kg (2.5 litre) packs (includes base and curing agent)
Pouring Grade	
Flexseal PS660	3.7 kg (2.5 Litre) packs (includes base and curing agent). The curing agent is packaged separately within the can
Primers	
Flexprime PS100	0.46 kg (500 ml) tin

YIELD

Flexprime PS100 approximately 125 metres/tin.

SEALANT QUANTITY ESTIMATOR

Joint size mm	Litres/linear meter	Linear meter/ 2.5 ltr pack
5 x 5	0.025	100.00
5 x 10	0.050	50.00
10 x 10	0.100	25.00
20 x 10	0.200	12.50
20 x 20	0.400	6.20
40 x 20	0.800	3.10
50 x 25	1.250	2.00
50 x 50	2.500	1.00

JOINT SIZE SUITABILITY

Joint Width
- Minimum 6 mm (12 mm if using Pouring Grade).
- Maximum 50 mm.

Joint Depth
- Porous substrates: Minimum 10 mm (12 mm in floor joints).
- Non-porous substrates: Minimum 6 mm (12 mm in floor joints).
- Maximum depth (all joints): 25 mm.

Width : Depth Ratio
Gun Grade
- Butt joints: 2 : 1.
- Lap/floor joints: 1 : 1.

Pouring Grade
- Floor joints: 1:1 (up to 25 mm width; up to 30 mm width when depth is 25 mm).
- Only used when joint width ≥ 12 mm.

ACCESSORIES

Flex Cleaner TB130: 1 litre tin (Toluene based – not suitable for use with plastics or delicate finishes).

Flex Cleaner AB160 : 1 litre tin (Alcohol based).

Equipment: Bulk loading guns and heavy duty follower plates.

STORAGE

Flexseal PS660 and Flexsprime PS100 have a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 35°C.

CAUTIONS

HEALTH AND SAFETY

The curing agent of Flexseal PS660 contains manganese dioxide and is therefore labelled ‘Harmful’ under the Chemicals (Hazard Information and Packaging for Supply) Regulations 1994. The base is labelled ‘Irritant’ under the Chemicals (Hazard Information and Packaging for Supply) Regulations 1994.

For further information refer to the Safety Data Sheet.

FIRE

Flexprime PS100 is flammable.

Ensure adequate ventilation when using. Do not use near naked flame and do not smoke during usse.

Flash point:
Flexprime PS100: 37°C.

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- Building products.
- Structural strengthening.