

KingSeal[®] PS2 GG

High performance two component polysulphide civil sealant.

DESCRIPTION

KingSeal PS2 GG 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.

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.

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, I & M.

Pouring Grade:

BS 5212 1990 TYPE FB (includes types N & F)

METHOD OF USE

Joint Preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Flex Cleaner.

TECHNICAL PROPERTIES

| | |
|---|--|
| Colour: | Grey |
| Solids: | 100%, passess the lead requirements for the VOC content |
| Typical shore A hardness: ASTM D2240 | 20 ± 5 for Gun Grade |
| Working life: | 1:30 - 3:30 hr @ 20 ^o C 40 - 60 min @ 35 ^o C |
| Application temperature: | 5 - 50°C |
| Setting time: | 36 - 48 hr @ 15 ^o C 15 - 20 hr @ 25 ^o C 10 - 15 hr @ 35 ^o C |
| Service temperature: | -40 - 90°C |
| *Cure rate: | 7 days @ 25 ^o C 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 |
| Service life: | 20 years (when used in trafficked areas or other special environments the life may be reduced) |
| Flammability: | Does not support combustion |
| Movement Accommodation: | |
| Butt joints (movement in tension and compression) | 25% |
| Lap joints (movement in shear) | 50% |
| VOC: | < 10 g/ltr |

< 10 g/ltr

**for water immersion, KingSeal PS2 GG should be fully cured.*

Priming

Flexprime PS100 is a universal primer suitable for use with porous and non-porous surfaces. Mix the two components 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 KingSeal PS2 GG while the primer is still wet or tacky.

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Mixing

Gun grade

The base and curing agent ratio controls the adhesion, strength and durability of KingSeal PS2 GG. 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

KingSeal PS2 GG pouring grade is supplied in two separate 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 Flex 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.

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.

PACKAGING

KingSeal PS2 GG is available as follows:

| Gun Grade | |
|-----------------|---|
| KingSeal PS2 GG | 3.7 kg (2.5 litre) packs (includes base and curing agent) |
| Pouring Grade | |
| KingSeal PS2 GG | 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 |

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.

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 discoloration

SS: Slight softening

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 |

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JOINT SIZE SUITABILITY

Joint Width

- ☐ Minimum 6 mm.
- ☐ Maximum 50 mm (multiple application). However, for wider joints, trials should be conducted to assess nonsagging conditions at vertical side.

Joint Depth

- ☐ Minimum 10 mm on porous substrates (12 mm in floor joints).
- ☐ Minimum 6 mm on non porous substrates (12 mm in floor joints).
- ☐ Maximum 25 mm.

Gun Grade Width : Depth Ratio (within above min./max. restrictions)

- ☐ 2 : 1 butt joints.
- ☐ 1 : 1 lap/floor joints.
- ☐ Pouring Grades Width : Depth Ratio (within above min./ max. restrictions)
- ☐ 1 : 1 floor joints up to 25 mm width joints up to 30 mm a joint depth of 25 mm.
- ☐ Pouring grade are only used when a joint width is of a minimum of 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

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative.

KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from KingKrete's Qatar facility are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

* Properties listed are based on laboratory-controlled tests.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this KingKrete Inc. publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

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