KINGKRETE®
We Create Future

KingSeal® PS400

Elastomeric high polymer content cold applied polysulphide sealant.

DESCRIPTION

KingSeal PS400 is a high polymer content, two components, chemical curing, cold applied, fuel, sewage water and oil resistant polysulphide sealant designed for use in many types of concrete, water retaining structure and pavements.

APPLICATIONS

- For sealing all types of joints in airport runways and aprons.
- For sealing water treatment and sewage treatment tanks including sludge digestion, filtration and aeration tanks.
- For sealing all types of joints in car parks, and traffic decks.
- For sealing all types of joints in warehouses, oil terminals, docks and harbors.
- For sealing joints in sea water retaining walls.

ADVANTAGES

- Biodegradable resistant in water and sewage treatment facilities.
- Cold applied, chemical curing sealant.
- Suitable for all climate conditions, weathering and UV resistant.
- Fuel and oil resistant.
- Excellent movement accommodation in butt and lap joints.
- Good chemical resistant to wide range of mild alkalis, diluted acids, petrol, diesel, jet fuel and many solvents and vegetable oils.
- KingSeal PS400 has a good adhesion to concrete, stone, many metals, ceramics and many other common construction substrates.

STANDARDS

KingSeal PS400 complies with BS4254:1983. US Federal Specification TT-S-00227E.

METHOD OF USE

Substrate Preparation

Surfaces must be clean of dirt, laitance, foreign maters and curing compounds.

TECHNICAL PROPERTIES

@ 25°C

Movement accommodation:	40% for lap joints (shear) 20% for butt joint (tension and comparison)
UV resistance:	Very good
Shore A hardness:	50 ± 5
Solid:	100%, passess the lead requirements for the VOC content
Colour:	Grey & black
Application temperature:	5 - 50°C
Pot life:	1 - 1.5 hr
Curing rate:	7 days @ lower temperatures cure rate will be slower
Service temperature:	-50 - 90°C
Chemical resistance:	Resistance to most dilute acids and alkalis, petrol, diesel, jet fuel, sea water, sewage water and many solvents and vegetable oils

CHEMICAL RESISTANCE	
Tests were carried out for 7 days @ 25°C ± 2:	
Lactic Acid 10%	Resistant*
Citric Acid 25%	Resistant
Sodium Hydroxide 50%	Resistant
Chlorinated Water	Resistant
Xylene	Resistant
Diesel	Resistant
Sulphuric Acid 25%	Resistant*
Phosphoric Acid 20%	Resistant*
Oleic Acid	Resistant

* can cause some slight discoloration.

After cleaning, a backing rod of an appropriate size should be placed in the joint to the required depth. Care should be taken not to puncture the backing rod during installation as punctures in the backing rod might create bubbling.

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PRIMING

For porous substrates, KingSeal Primer PS is used. It is a two components epoxy based system. And the KingSeal PS400 is applied on primed substrates when the primer is still tacky.

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. KingSeal PS400 is supplied in two components, part A and part B. The full quantity of the two components must be mixed thoroughly for 2 - 3 minutes until having a uniform colour and smooth paste.

PLACING AND FINISHING

The mixed sealant shall be applied directly into the primed joints. Sealant must be filled with a minimum recess of 6 mm as insufficient recess can expose the sealant to vehicle tire which might damage the sealant with time.

CLEANING

All equipment should be cleaned immediately after finishing using an appropriate solvent. Hardened sealants should be removed mechanically.

PACKAGING

KingSeal PS400 is available in 2.5 litre packs. KingSeal Prime PS is available in 0.5 litre packs.

SEALANT QUANTITY ESTIMATOR

Joint size mm	Meters per litre
10 x 10	10.00
13 x 13	5.91
15 x 15	4.44
20 x 10	5.00
20 x 20	2.50
25 x 12	3.33
25 x 25	1.60
30 x 15	2.22
30 x 30	1.11

JOINT SIZE SUITABILITY

Joint width*:

- 6 mm minimum.
- 40 mm maximum (in trafficked areas).

Joint depth:

- 10 mm minimum.
- 25 mm maximum.

Width: Depth ratio**

- 2:1 Butt joints.
- 1:1 Lap joints.

* For wider joints please consult KINGKRETE Technical Department.

**Within above min/max restrictions.

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.

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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 Middle East facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

* Properties listed are based on laboratory-controlled tests.
® = Registered trademark of the KingKrete-Group in many countries.

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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

Field service where provided does not constitute supervisory responsibility. Suggestions made by KingKrete Inc. either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not KingKrete Inc. are responsible for carrying out procedures appropriate to a specific application.

KingKrete Middle East
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