

Dr.Seal PS PG

High Performance Elastomeric Polysulfide Sealant



Description

Dr.Seal PS PG is a two-part pouring-grade polysulfide sealant whose base component consists of a specially formulated blend of liquid polysulfide polymer, plasticizers and fillers. When mixed with the curing agent it forms a tough flexible, durable, rubber like material, which adheres to most common construction surfaces.

Applications

Dr.Seal PS PG Pour Grade used for horizontal joints in bridges, concrete pavements, factory and garage floors, horizontal trafficable joints and recommended for sealing expansion joints and construction joints in floors or other horizontal surfaces. Whenever a permanently flexible seal is required

Advantages

- Economical & easy to apply
- Excellent adhesion to most common substrates, including primed concrete, glass, aluminum and stainless steel
- Resistant to UV and weathering – extended life in exposed conditions
- Nontoxic – permits use in drinking water reservoirs
- Tough, elastomeric and flexible – accommodates cyclical movement without rupturing

Application Procedure

Surface Preparation

Surfaces must be completely dry and free from all dirt, dust, cement laitance and any deleterious matter. Where necessary joints should be re-profiled to ensure a stable and sound substrate. Metallic surfaces must be free of rust, scale, or protective lacquer.

Joint Design

Dr.Seal PS PG is suitable for application in joints between 6 and 40mm wide. For porous substrates, maintain a minimum sealant depth of 10mm, for nonporous substrates, the minimum depth is 6mm. For horizontal joints a minimum depth of 12mm should be maintained and for joint subjects to traffic or hydraulic pressure, the minimum depth should be 20mm.

If the joints are subject to cyclic movement, they should be designed to give an optimum width/depth ratio of 2:1. When using filler boards (e.g., bitumen impregnated fiberboard or resin bonded corkboard or equivalent) the filler board should be raked out to the correct depth before applying the sealant. Movement accommodation of the sealant will be restricted if it bonds to the filler board. Insert a bond breaking tape into the joint to prevent adhesion.

Priming

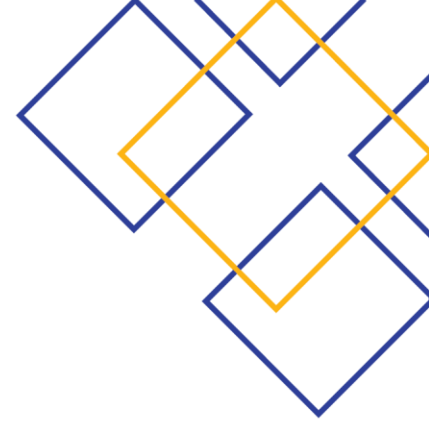
The use of a surface primer is always required on porous surfaces. On non-porous surfaces a primer may be not necessarily required except where glass or glazed surfaces are to be permanently immersed in water. Priming of the joint faces should be carried out shortly before application of the sealant. Pour a small amount of the primer into a clean metal container, ensuring that the main container is tightly resealed. Liberally apply a coat of primer with a soft brush to the required surface and allow it to dry until tack free (30- 60 minutes) before application of the polysulfide sealant. If primer is left for more than 3 hours, re-priming is necessary. Apply masking tape to both sides of the joint. These strips will assist in the finished appearance of the sealant and can be removed after application. Clean all brushes immediately with appropriate cleaning solvent.

Note: Care should be taken when priming materials such as granite, marble, natural stone or composites as migration and staining primer may occur.

Mixing

Both curing agent and polymer base are included in the unique container. The curing agent is in a separate small container, fixed to the top of the larger container, which contains the polymer base. The full quantity of curing agent must be transferred into the large container for mixing. Mixing is best carried out using a flat bladed stirrer coupled to a slow speed (150rpm) electric drill. Mix for 4 minutes paying particular attention to the sides and bottom of the container. When thoroughly mixed, both components should be completely homogeneous and a uniform color.

Note: streaks of white or grey indicate inadequate mixing.



Placing

when thoroughly mixed pour directly from the container into the joint. Note: very new narrow joints should be filled via a barrel gun.

Finishing

In order to displace any air bubbles present in the sealant caused by mixing and also as an aid to good adhesion, it is advisable, immediately after the **Dr.Seal PS PG** has been installed, to finish by tooling with a rounded spatula or similar object to a slightly concave profile. Do not use moistened fingers. Protect finished seal from inclement weather until initial set has taken place and when the surface skin is clearly visible.

Cleaning:

Clean all tools and equipment with cleaning solvent immediately after use. **Dr.Seal PS PG** can be removed from hands by means of industrial hand cleaners.

Curing

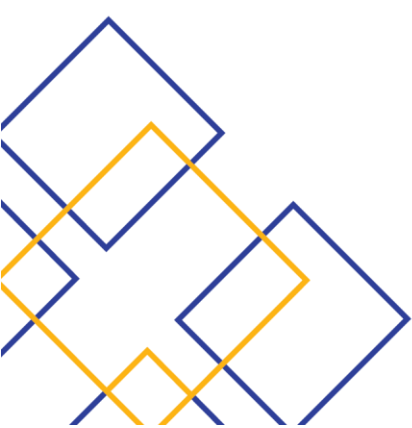
Pot life, cure period and initial setting is affected by ambient temperature - the higher the temperature, the faster the set and cure. Guide of set and cure times:

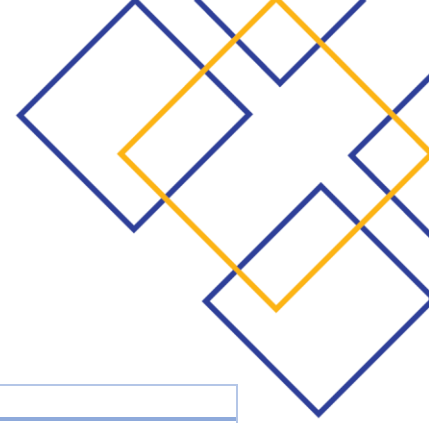
Property	Ambient Temperature			
	5 °C	10 °C	25 °C	35 °C
Pot life	24 hrs	18 hrs	5 hrs	2 hrs
Initial Set	5 days	72 hrs	24 hrs	5 hrs
Full Cure Days	8 weeks	5 weeks	2 weeks	7 days

Coverage

The estimated coverage in linear meters for a 4-liter pack:

Joint depth (mm)	Joint Width (mm)					
	6	12	20	25	30	40
6	83	42				
10		24	15			
12		21	12.5	10		
15			10	8	6.7	
20			7.5	6	5	3.7
25				4.8	4.0	2.9





Performance Data

Service temperature	-23° - 100°C
Application temperature limits	5° - 50°C
Shore A Hardness at 25°C (full cure)	25
Chemical resistance	Good
UV resistance	Good
Movement Accommodation Factors (MAF)	
Butt Joints	35% (±171/2%)
Lap joints	50% (±251/2%)

Properties

Color	Grey
Density	1.6
Solid Content %W	100%
Initial set at 25°C	24 hours
Pot life at 25°C	Min 1 hour
Full Cure	7 days
Water Immersion	must be fully cured before immersion

Chemical Resistance

Kerosene	Resistant
White Spirit	Resistant
Lubricants	Resistant
Xylene	Resistant
Aromatic Solvents	Resistant
Chlorinated Solvents	Poor
Dilute acid	Resistant
Dilute alkalis	Resistant

