



TechnoSeal® PS 651 PG

Two Component pouring grade Polysulphide Joint sealant for horizontal movement joints.

Description:

TechnoSeal® PS 651 PG is a two component Polysulphide based, tough flexible durable with strong adhesive sealant specifically designed to be used as a watertight seal for moderate movement and control joints in concrete and pavements.

TechnoSeal® PS 651 PG consists of a 'Base' compound and 'accelerator' (Curing Agent). When the two components are mixed together prior to application, a chemical reaction is initiated which cures instant to a firm, flexible rubber like seal with excellent adhesion with strong adhesive property on most building substrates and joints.

Application Includes:

TechnoSeal® PS 651 PG is used for following applications-

- Vertical & Overhead expansion joints in Industrial, commercial or residential buildings
- Joints in water retaining structures like water tank, swimming pool, aqueducts, dams, canals & reservoirs.
- Joints in concrete roads bridges, subways, flyovers & airport runway.
- Concrete cracks repairs in slab.
- Atomic nuclear power station reactor domes.
- Joints between pipe lines.
- Roof light joints.
- Joints between plastered masonry walls & aluminum door/window section sides.

Features:

- Highly resilient with excellent recovery characteristics
- Prevents uncontrolled cracking by allowing expansion and contraction during temperature changes
- Excellent adhesion to most common building substrates
- Good resistance to ageing. Retains joint soundness once cured
- Resistance against mild chemicals, hydrocarbon fuels, sea water
- Provides permanent and uniform watertight seal
- Non-staining
- Excellent resistance to fatigue and stays flexible throughout its service life – won't become brittle, caulk or crack due to ultra violet exposure
- Non-toxic once cured. Can be used in potable water reservoirs and swimming pools.

Application Procedure

Joint preparation:

The joint edges must be clean, dry and free from oil, loose particles, cement laitance and other contaminants which may affect the adhesion. A thorough wire brushing, grinding, sand blasting or solvent cleaning may be required to expose a clean and sound substrate. The compressible joint filler shall be cut back to expose a uniform joint depth and should be tightly packed and no gaps or voids exist at the base of the sealing slot before positioning a bond breaker.

Joint Size:

TechnoSeal® PS 651 PG can be used for joints of width ranging from 5 to 50mm. Joints with cyclical movements should have an optimum width: depth ratio of 2:1. The recommended minimum joint depths for corresponding surfaces are:-

Metals, glass and other non-porous surfaces	5 mm
Porous surfaces like masonry and concrete	10 mm
For trafficked joints and joints subject to hydraulic pressures	20 mm

Priming Primer shall be applied to a clean and dry surface prior to the installation of backer rod or bond breaking tape. **TechnoSeal® PS prime** is recommended to be applied on porous substrates. For non-porous substrates such as steel or glass **TechnoSeal® PrimePlus** is recommended for optimum adhesion. The primer shall be applied by a brush in a thin coat application and shall be allowed to become tack free prior to the application of the sealant. The joint edges shall be re-primed if the sealant installation is not carried out within 3 hours of application of the primer. For obtaining a clean and neat finish, masking tape shall be applied on both the edges of the joint before applying the primer.

Joint Backing

Sterling TechnoFix® Cellrod -Closed cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint will prevent the use of Sterling TechnoFix® Cellrod backer rod, Sterling TechnoFix®BBT- an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. Ensure that all backing should be dry at time of sealant application. Fix a masking tape on both sides of joint surface to get neat & clean appearance of joints after application of sealant.

Mixing & Application

TechnoSeal® PS 651 PG is supplied in a single pack containing both base and curing agent. To obtain a uniform homogenous mix the use of as low speed paddle mixer (not more than 300RPM) is ideal. Mixing should continue till a uniform shade is obtained. Although small quantities may be mixed with a palette Knife, for achieving mix uniformity a paddle mixer would be ideal. In both cases achieving a uniform mix is vital.

Primer

10 % of the Sealant quantity (May vary depending upon the porosity of the substrate)

Packaging

TechnoSeal® PS 651 PG is supplied in 4 kg Container packed 16 kg carton.

Storage

The product should be stored in its original package, in a cool and dry place protected from frost. For short term storage, maximum 3 palettes should be placed on top of each other and the shipment should be made on a 'first come, first go' basis. Palettes should not be placed on top of each other during long term storage. Keep away from any fire hazards or ignition sources

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Health and Safety instructions

It is dangerous to approach the application sites with fire. Fresh air should be circulated in the storage and the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Precautions Rules should be used.

Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. Store all materials and equipment safely and out of reach of children and animals.

Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area.

Cautions & Important Watch Points

Over-painting of sealants is not recommended because of the inability of paint films to accept movement. However, if definitely required, trials should be carried out to determine compatibility. TechnoSeal® PS 651 PG should not be used in direct contact with materials containing pitch or bitumen.

DO NOT PART MIX

Since the base and the curing agent ratio controls the ultimate physical properties like adhesion, durability and strength, one complete kit has to be mixed at a time. The side and base of the container shall be periodically scrapped with a scrapper to ensure that the curing agent is properly dispersed and blended into the mix. Load the sealant immediately into the barrel gun by a heavy duty follower plate. Remove the cap and nozzle from the gun and ensure that the plunger is pushed all the way forward. The follower plate shall be placed on the flat surface on top of the pail. Place the barrel gun over the lip of the follower plate and depress the release plate and draw the material into the barrel by pulling back the plunger slowly.

Fix the nozzle and start extruding into the joint firmly by maintaining an even pressure on the trigger of the gun. On vertical joints, sealant extrusion shall start from the bottom of the joint and continued to the top. For deep vertical joints, the sealant shall be filled in 2 to 3 applications in order to avoid air entrapment and sagging. Once the sealant has been installed a suitable rounded tool soaked in a soapy water solution can be used to achieve a smooth hour glass profile. Any masking tape applied should be removed immediately after the sealant is installed.

Clean Up

Excess sealant and smears adjacent to the joint interface can be carefully removed with TechnoFix® CleenzolPlus before the sealant cures. Used tools and equipment must be cleaned carefully with TechnoFix® CleenzolPlus. TechnoSeal® PS 651 PG, once cured, residual material can only be removed mechanically.

Coverage

$Q = \frac{1.6 \times L \times W \times D}{1000} = \text{Volume of material required}$
(Wastage is not considered) Volume of material required.

Where, L = Length of the joint in linear meter
W = width of the joint in mm
D = depth of the joint in mm

Typical Properties at 25°C

Physical State	Part-A & B Paste consistency
Colour	Grey / White
Pot Life, 25°C	Minimum 2 hrs
Setting Time, hr, 35°C	6
Specific Gravity	1.60
Solid Contents, %	97 - 100
Application Temp, °C	5 - 50
Movement Accommodation Factor, %	± 25
Butt Joints	± 50
Lap Joints	
Initial Cure	24 hours
Full cure	Up to 8 days in tropical conditions
Service Temperature	- 40°C to 85°C.
Shore A Hardness	22 ± 3

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Additional information

Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd -The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

DISCLAIMER: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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Please note that this datasheet supersedes all previous versions.