

MonniSeal PS

Two Component Polysulphide Sealant

Product Description

MonniSeal PS is a two part, high performance Polysulphide joint sealant. It is specifically designed for sealing movement joints in buildings and civil engineering structures especially where the service conditions would be harsh for most common sealants.

MonniSeal PS is produced in two grades – PG (pouring grade) self-leveling for horizontal joints and GG (thixotropic gun grade) for vertical joint applications.

Uses

- ▶ Expansion joints for: Bridges, Roadways, Warehouse Floors, Airport Runways and Apron Pavements
- ▶ Sealing of moving and construction joints as well as joints between different construction materials in high rise buildings, roof terraces & ceilings, structural expansion joints running through the ceiling
- ▶ Sealing of joints in water retaining structures such as Reservoirs, Dams, Canals and Culverts
- ▶ Vehicular and pedestrian traffic pavements of concrete

Advantages

- ▶ Highly resilient with excellent recovery characteristics
- ▶ Maintains flexibility over time
- ▶ Excellent resistance to fatigue and deterioration due to weathering, UV light and airborne pollutants
- ▶ Accommodates continuous and cyclic movements
- ▶ Excellent adhesion to most common substrates

Usage Instructions

Substrate Preparation

The joint surface must be clean, dry and free from loose and flaky material, efflorescence, laitance, curing compound, dirt, oil, grease, any old coatings.

Surface defects at edges and corners of the joints should be repaired using appropriate Colmef Repair Products and allowed to cure for the specified duration as recommended in the respective technical data sheet.

Priming

Apply MonniSeal Prime to both the sides of the porous joint faces prior to installation of backer rod or bond breaking tape, by brushing in a thin uniform coat. Avoid applying too much primer as it may act as bond breaker.

For non-porous substrate such as steel or glass, use MonniSeal Prime NP for optimum adhesion. The primer shall be applied by brush in a thin coat and shall be allowed to become tack-free prior to application of 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 edges of the groove before applying the primer.

Mixing

Mix and use one complete unit at a time. MonniSeal PS is supplied as base / hardener combined unit. Pour the hardener (Component B) into the base (Component A) pail and mix thoroughly with a slow speed drill (300-500 rpm) fitted with a flat bladed paddle for 8-10 minutes till a uniform color and consistency is achieved.

Scrape down the sides as much as possible using a pallet knife and avoid lifting the mixing paddle out of material to minimize entrapment of air.

Application

Apply MonniSeal PS immediately after mixing by pouring directly into the joint (in case of pouring Grade) or by using a professional caulking gun with consistent, positive pressure to force the sealant into the joint (in case of Gun grade). Fill the joints from the bottom up to the exterior surface, avoid-ing bridging which may form air voids. Use the sealant tool soaked in soapy water to compact the sealant into the joints and to achieve a smooth concave polished surface. Any masking tape which has been applied should be removed before the sealant cures.

Joint Design

MonniSeal PS may be applied to joints between 6 and 40 mm wide. Joints expected to experience cyclic movements should have a width depth ratio 2:1 for butt joints and 1:1 for floor, static and lap joints and should be designed such that the total movement does not exceed the 25% MAF. The joints depth shall not exceed the width. MonniSeal PS may be applied to joints between 6 and 40 mm wide. Joints expected to experience cyclic movements should have a width depth ratio 2:1 for butt joints and 1:1 for floor, static and lap joints and should be designed such that the total movement does not exceed the 25% MAF. The joints depth shall not exceed the width.

Minimum sealant depth recommended:

- ▶ 5 mm for non-porous surfaces
- ▶ 6 mm for all porous surfaces
- ▶ 20 mm for trafficked joints and those exposed to hydrostatic pressures

To control joint depth, use MonniCord PE a closed cell polyethylene backer rod. The backer rod shall be of a diameter which is at least 20% larger but not greater than 33% of the joint width to ensure that it remains in compression. If the joint depth does not allow backer rod, use polyethylene bond breaker tape to prevent three sided adhesion. Do not prime or puncture the backer rod.

Cleaning

Clean tool with Monneli Solvent 10 promptly before material hardens. Cured material must be mechanically removed.

Technical Data

Category	Typical Values
Appearance	
<u>Pouring Grade:</u>	Grey
<u>Gun Grade:</u>	Grey, white (special colours are available upon request)
Density	
<u>Pouring Grade:</u>	1.45 Kg/L @ 25 °C
<u>Gun Grade:</u>	1.50 Kg/L @ 25 °C
Consistency	
<u>Pouring Grade:</u>	Self Levelling
<u>Gun Grade:</u>	Non Sag Thixotropic
Shore "A" Hardness (ASTM D 2240)	
<u>Pouring Grade:</u>	15-20
<u>Gun Grade:</u>	25
Elongation (ASTM D412)	
<u>Pouring Grade:</u>	>500%
<u>Gun Grade:</u>	>300%
VOC	5.0 g/L
Shrinkage	Negligible
Wokring Time	≥120 minutes @ 25 °C
Movement Capability (ASTM C 719)	±25%
Tack Free Time (ASTM C 679)	5 hrs
UV Resistance	No deterioration @ 300 hrs
Chemical Resistance	Mild Acids, Alkalis Hydrocarbon Fuels Veg. Oil & Sea Water
Cracking & Caulking (after heat aging at 70 °C)	No deterioration
Initial Cure	24 @ standard conditions/hrs.
Full Cure	7 @ standard conditions/day.
Application Temperature	+5°C to +35°C
Service Temperature	-5°C to +80°C

All values are subject to 5-10% tolerance

Standards Compliance

- ▶ BS 4254
- ▶ BS 5212
- ▶ WRAS-BS 6920, test on effect of water quality
- ▶ ASTM C 920, Type M, Grade P, Class 25, Use T2

Consumption

The approximate linear meter sealant consumption per liter can be estimated from the following formula:

Sealant Consumption per linear meter (liter) =

$(W \times D) / 1000$

Where: W = Joint Width (mm), D = Joint Depth (mm)

Packaging

MonniSeal PS-PG available in 4 Liter kit

MonniSeal PS-GG available in 2.5 Liter kit

Shelf Life & Storage

Store the product in dry closed place with temperature between 10 to 35°C. Storage above this temperature may reduce shelf life. The product maintains its stability for 12 months.

Recommendations

- ▶ Do not apply on damp and contaminated surfaces.
- ▶ Sealant joint movement should not exceed $\pm 25\%$ of joint width when installed in a 2:1 width to depth ratio.
- ▶ Paint compatibility with sealant should be checked prior to painting.

Health & Safety

Avoid contact with skin & eyes. During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water.

In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

Legal disclaimer

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