

Polyseal PS+

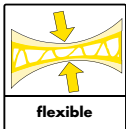
2 part gun grade polysulphide sealant for wide joints

Highly flexible, non-staining joint sealant with excellent recovery for wider joint.



CHARACTERISTICS

- ▶ Highly resilient with excellent recovery characteristics
- ▶ 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
- ▶ Prevents uncontrolled cracking by allowing expansion and contractions 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
- ▶ Non-toxic. Can be used in potable water applications, swimming pools



DESCRIPTION

Polyseal PS+ is a two component non slumping, chemically curing sealant for wide joints. It is based on a liquid polysulphide polymer which when mixed with the hardener, cures to form a tough, flexible and non staining rubber like seal. Polyseal PS+ is specifically designed to be used as a watertight seal for overhead moderate movement joints and joints with widths greater than 30mm. Polyseal PS+ has excellent adhesion to concrete, stone, metals and other common building substrates. The cured sealant has good resistance to most environmental chemicals & resists deterioration on prolonged exposure to UV. The sealant has a movement accommodation factor (MAF) of $\pm 25\%$.

FIELDS OF APPLICATION

- overhead and vertical movement and control joints
- joint width between 30mm and 50 mm

APPLICATION INSTRUCTIONS

Joint preparation

The joint surface 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



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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.

Priming

The primer Polyprime PS* shall be applied to clean, dry surfaces prior to the installation of backer rod. The primer Polyprime PS* shall be applied to clean, dry surfaces prior to the installation of backer rod.

Back-up material

A bond breaking backing rod (Polyrod)* shall be inserted into all movement joints to avoid a three sided adhesion. For static and joints where the depth is not sufficient for the use of the backing rod, a bond breaking tape may be applied to prevent the three side adhesion.

MIXING & APPLICATION

Polyseal PS+ is available in a ready to mix container with all the components packed in a single tin. The material shall be mixed thoroughly with a slow speed drill (300-400 rpm) fitted with a flat bladed paddle for 2-3 minutes till a uniform colour and consistency is achieved. 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 scraper to ensure that the curing agent is properly dispersed and blended in the mix. Load the

sealant immediately into the barrel gun by a heavy duty follower plate. Start extruding into the joint firmly by maintaining an even pressure on the trigger off the gun. Vertical joint sealing shall commence from the bottom of the joint and continued to the top. Overhead sealing shall start from one end of the joint. 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.

CLEANING

Remove all excess sealant with a scraper. Any spillage can be cleaned using Polysolvent. Clean all tools and equipments using similar solvent immediately after the tooling. Hardened materials can be removed mechanically only.

LIMITATIONS

Polyseal PS+ is not recommended for:

- Movement joints having MAF >25%
- Damp and contaminated surfaces
- Asphalt pavements
- Over painting (paint compatibility with sealant shall be checked prior to painting)
- Joint >50mm width

JOINT DESIGNS

The width of the joint should be a minimum of 4 times the anticipated movement. Joints with cyclic movement should have a width to depth ratio of 2:1 for butt joints and 1:1 for control and lap joints. The joint depth shall not exceed the width.

COVERAGE

Length of joints in meters filled per 1 L of Polyseal PS+
 Depth [mm] Width [mm]

| Depth [mm] | 20 | 25 | 30 | 40 | 50 |
|------------|-----|-----|-----|------|------|
| 10 | 5 | | | | |
| 15 | 3.3 | 2.6 | 2.2 | | |
| 20 | 2.5 | 2 | 1.6 | 1.25 | |
| 25 | | 1.6 | 1.3 | 1 | 0.8 |
| 30 | | | 1.1 | 0.8 | 0.66 |
| 40 | | | | 0.6 | 0.5 |
| 50 | | | | | 0.4 |

Calculation based on theoretical coverage. Actual material consumption at site will vary depending on the wastage.

STANDARDS

Polyseal PS+ complies with the requirements of: BS EN ISO 11600:2003 + A1:2011 (formerly BS 4254), BS 5212: Part 1, BS 6920, ASTM C 920 [Type M, Grade NS, Class 25 USE T].

STORAGE & SHELF LIFE

Store in a cool, dry place and keep away from all sources of heat and sunlight. In tropical climates, store in air condition rooms. The shelf life is up to 12 months in un-opened conditions and if stored as per recommendations. Excessive exposure to sunlight, humidity and UV will result in the deterioration of the quality of the product and reduce its shelf life.

HEALTH & SAFETY

As with all construction chemical products caution should be exercised. Contains manganese dioxide. Refer the product MSDS for full details. Which is corrosive and may cause burns to skin if handled without proper protection. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

| | |
|------------------------|------------------------------------|
| Polyseal PS+ | 2.5L pail |
| Polyprime PS | 1L pail |
| Polyprime NP | 1L pail |
| Polysolvent | 5L & 20L pails |
| Ancillaries/equipments | Polyrod barrel gun, follower Plate |

TECHNICAL SPECIFICATION

| PROPERTIES | VALUES | TEST STANDARDS |
|--|--|----------------|
| Color | Grey | - |
| Density, [g/cc] | 1.6±0.05 | ASTM D 1475 |
| Viscosity | Thixotropic paste | - |
| Shrinkage | Negligible | ASTM C 531 |
| Application life, [minutes] | >120 | BS 4254 |
| Shore 'A' Hardness | 20-35 | ASTM D 2240 |
| Tack free time, [hours] | 5 | ASTM C 679 |
| Adhesion to concrete, [N] | >25 | BS 4254 |
| UV resistance @300, [hours] | No deterioration | ASTM G 154 |
| Suitability with potable water | Non toxic | BS 6920 |
| Chemical resistance | pH 2.5 to 11.5 hydrocarbon fuels veg. oil, sea water | |
| Initial cure @ standard condition, [hours] | 24 | - |
| Full cure @standard condition, [days] | 7 | - |
| Application temperature, [°C] | +5 to +40 | - |
| Service temperature, [°C] | -20 to +80 | - |

All values given are subject to 5-10% tolerance

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed. The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

