



PC-Sealant®PG 55

Elastomeric high performance pouring-grade poly sulphide joint sealant

PC-Sealant®PG 55 is a premium two-part elastomeric joint sealant with a pouring grade and self-smoothing capabilities. Comprising a liquid polysulphide polymer and hardener, it generates a durable, flexible, and non-staining rubber-like seal with robust resistance to UV rays and chemicals. This sealant exhibits excellent adhesion to various building surfaces, such as concrete, stone, and metals. Additionally, it has a movement accommodation factor (MAF) of ±25%, making it an ideal choice for dynamic joint sealing.

AREAS OF APPLICATION

- Industrial buildings and warehouses with heavy loads.
- Storage yards with high traffic.
- Airport runways and aprons to withstand aircraft weight.
- Tile expansion joints to prevent cracking.
- Concrete pavements and drainage structures for durability and longevity.

EXPANSION JOINT DESIGN

PC-Sealant®PG 55 may be used in a joint designed in accordance with accepted architectural/engineering practices. Joint width should be at least five times anticipated movement, and not less than 5mm.

The maximum width of the joint on which PC-Sealant®PG 55 can be applied is 40mm.

While applying on an expansion joint, the depth (D) of the sealant should be a minimum 10 mm for joints less than 20mm wide. For wider joints (20 mm to 40 mm), a width to depth ratio of 2:1 is recommended.

YIELD

The following formula is an approximate guideline to calculate foreseen yield for 1000ml of PC-Sealant®PG 55.

$$L = 1000 / (W \times D)$$

Where: L = Length of joint filled in meters (per Litre) D = Depth of the joint in mm

W = Width of the joint in mm

The below table contains approximate values of L for usually found joint widths and depths

ADVANTAGES

- Does not contain toxins.
- Does not cause stains.
- Very durable.
- High UV resistance.
- Exceptional fatigue resistance and can handle cyclical movements.
- Resistant to mild chemicals, hydrocarbon fuels, and seawater.

TECHNICAL DATA

Physical Properties	Test Method	Typical Value
Chemical resistance	ASTM D 543	pH 2.5 to 11.5, hydrocarbon fuels, vegetable oil, urea, seawater
UV resistance @300 hours	ASTM G 53	No deterioration
Water potability	BS 6920	Passes
Cracking & chalking after heat ageing @70°C	TT-S-00227E	No deterioration
Application temperature [°C]		+5 to +40
Service temperature [°C]		-20 to +80
Reaction to fire	ASTM E84	Class A
Specific gravity	ASTM D 1475	1.35 ± 0.05
Shore 'A' Hardness	ASTM D 2240	15-25
Adhesion to concrete [N]	BS 4254	>25
Elongation [%]	ASTM D 412	>300
Consistency		Free flowing
Shrinkage	ASTM C 531	Negligible
Application life [minutes]	BS 4254	>30
Tack free time [hours]		5
Initial cure @ standard conditions		24 hours
Full cure @ standard conditions		7 Days

Joint Depth(mm)	Joint Width(mm)							
	6	10	12	15	20	25	30	40
6	6	10	12	15	20	25	30	40
10	16.5	10	8.3	6.6	5			
12					4.1	3.3		
15						2.6	2.2	
20								1.2

JOINT PREPARATION

Joint surface should be dry, clean, and free of oil, loose particles and other pollutants that may affect adhesion. To expose a clean and sound substrate, thorough wire brushing, grinding, sandblasting or solvent cleaning may be needed. To expose a uniform joint depth, the compressible joint filler is cut back.

PRIMING

To ensure optimal results, it's recommended to apply **PC-Prime®PS** onto a clean and dry surface before fixing the backer rod or bond-breaking tape. The primer should be applied using a thin-coat brush and left to become tack-free before proceeding with the sealant application. If the sealant application is not executed within three hours of the primer application, it's advised to apply a fresh coat of primer onto the joint edges. For added precision, masking tape can be used on both edges of the groove before the primer application.

MIXING AND APPLICATION

PC-Sealant®PG 55 is supplied in two parts (Base and Hardener sections of the same container) and it is mixed on-site. Part B (hardener) is to be poured into Part A (base) pail and blended very well with a gradual speed drill (300-400 rpm) suited to a mixing paddle for 2-3 mins until a uniform color and consistency is achieved. Pour the mixed material directly into the joint from the pail.

Once mixed, **PC-Sealant®PG 55** should be used immediately. Do not part mix. (One complete kit has to be mixed at a time. The base and the hardener ratio controls the ultimate physical properties like adhesion, durability, and strength. The sides of the container shall be periodically scrapped with a scraper to ensure that the hardener is properly dispersed and blended in the mix.)

BACK-UP MATERIAL

A closed cell polyethylene backer rod shall be inserted into the joint to avoid a three-sided adhesion. The use of a backer rod ensures the proper depth of the joint and facilitates the formation of an hour-glass profile on the applied sealant at the same time. The backer rod will also provide resistance to the tooling pressure of the sealant and help achieve proper wetting of the substrate when the sealant is tooled. The size of the backer rod must be at least 10% greater than the joint to make sure that it remains in compressed position during the sealant application. Do not damage the backer rod during or after installation, because it may cause air bubbles to trap in the sealant and affect its performance.

CLEANING

Take off all excess sealant with a scraper. Spilt off material can be cleaned using cleaning solvents. Clean all apparatus immediately after the tooling. Hardened materials can only be removed mechanically.

LIMITATIONS

- Vertical Joints
- For joints widths > 40 mm.
- Movement joints with movement > 25%.
- As a structural (load transferring) sealant.
- Application on damp or contaminated surfaces.

PACKAGING

4 & 6 Litre kit. Available in grey color.

STORAGE AND SHELF LIFE

PC-Sealant®PG 55 must be stored in a cool, dry place and keep away from all heat sources and sunlight. The shelf life is 12 months if stored as per recommendation. In hot climates, store in the air-conditioned room. Excessive exposure to sunlight, humidity and heat will reduce the shelf life.

HEALTH AND SAFETY

Caution should be exercised with all chemical products. If handled without proper protection, it may cause skin burns. For full details, refer to the SDS of the product. Protective apparel should be worn, such as gloves and goggles. Treat the skin or eyes with fresh water immediately for any splashes. Do not induce vomiting, but immediately call for medical assistance if any of the products are accidentally swallowed.



PC-WC GLOBAL FZ-LLC

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TECHNICAL DATA SHEET UPDATED IN
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TD/SPC-SEALANT®PG 55/20

All technical data in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

The information, particularly the recommendations relating to the application and end-use of PC-WC products, are given in good faith based on PC-WC's current knowledge and experience of the products when properly stored, handled and applied under normal conditions by PC-WC recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or any other advice offered. The user must test the product's suitability for the intended application and purpose. PC-WC Global FZ-LLC reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Our technical assistance is at the disposal of the users. Consult the latest update of the technical data sheet on our website www.pc-wc.com