

TRITOSEAL PS30-GG

High Performance Elastomeric Gun-Grade Polysulphide Joint Sealant.

DESCRIPTION

TRITOSEAL PS30-GG is a two-component, chemical-curing elastomeric joint sealant. TRITOSEAL PS30-GG is specifically designed to be used for moderate movement and control joints as a watertight seal. It is based on a liquid polysulphide polymer that when mixed with hardener cures to form a durable, flexible, and non-staining rubber like seal with good UV and chemical resistance. TRITOSEAL PS30-GG has excellent adhesion to concrete, stone, metals, and other typical building surfaces. The sealant has a movement accommodation factor (MAF) of $\pm 25\%$.

APPLICATIONS

Sealing of expansion and isolation joints in:

- Boundary walls, parapet walls.
- Airport runways, pavements, and aprons.
- Termination of waterproofing membranes.
- Buildings, retaining wall, storm water drainage, bridges etc.

FEATURES

- Non-toxic
- Non-staining
- Highly resilient
- Good UV resistance.
- Excellent fatigue resistance and accommodates cyclic movement.
- Resistant to mild chemicals, hydrocarbon fuels and sea water.

TECHNICAL SPECIFICATION

Physical Properties	Test Method	Typical Value
Specific gravity	ASTM D 1475	1.55 ± 0.05
Shore 'A' Hardness	ASTM D 2240	20-35
Adhesion to concrete [N]	BS 4254	>25
Elongation [%]	ASTM D 412	>300
Consistency		Thixotropic paste
Shrinkage	ASTM C 531	Negligible
Pot life [minutes] @ 30° C	BS 4254	60
Tack free time [hours]@ 30°C		5
Initial cure @ standard conditions [hours]		24

Full cure @ standard [days]		7
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 Av
Color	ASTM E84	Grey

EXPANSION JOINT DESIGN

TRITOSEAL PS 30 GG 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 TRITOSEAL PS 30 GG can be applied is 30mm.

While applying on an expansion joint, the depth (D) of the sealant should be minimum 10 mm for joints less than 20mm wide. For wider joints (20 mm to 30 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 Tritoseal PS30-GG.

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

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

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

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

Primer Trito prime PS should be applied to the clean, dry surface before fixing backer rod or bond-breaking tape. It is applied with a thin-coat brush and must be left to become tack free before the sealant application. If the sealant installation is not carried out within 3 hours of the application of the primer, the joint edges must be re-primed. Masking should be applied on both edges of the groove before applying primer.

BACK-UP MATERIAL

A polyethylene backer rod (Tritorod) 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 20% 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.

MIXING AND APPLICATION

TRITOSEAL PS30-GG is available in a ready-to-mix container and is packed in a single tin with all the components. The material blends very well with a gradual speed drill (300-400 rpm) equipped with a mixing paddle for 2-3 minutes until uniform color and consistency are achieved. Transfer the sealant to the joint using a sealant gun or a steel scrapper of suitable size. Surface finishing can be done using a clean scrapper or a putty blade. If needed the surface finish can be improved by swiping the surface with a suitable tool wetted with soapy water.

Once mixed, TRITOSEAL PS30-GG should be used immediately. Do not part mix. (One complete kit should 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 scrapper to ensure that the hardener is properly dispersed and blended in the mix.)

CLEANING

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

LIMITATIONS

Tritoseal PS 30 GG is not recommended for use in the below mentioned situations:

- For joints widths greater than 30 mm.
- Joints with more than 25% MAF
- As a structural (load transferring) sealant.
- Application on damp or contaminated surfaces.

CLEANING

2.5 Liter kit. Available in grey color.

STORAGE AND SHELF LIFE

TRITOSEAL PS30-GG 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 in an air-tight container. In hot climates, store in air-conditioned room. Excessive exposure to sunlight, humidity and heat will reduce the shelf life.

HEALTH AND SAFETY

Caution should be exercised as 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.

Note:

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control. Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields. Information on this datasheet is subject to change without notice and should not be used for writing specification. For additional information on specific applications, please contact Triton Middle East, LLC. 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. Triton 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. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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