

Polystrada Sealant

Hot-poured bituminous mastic formulated with bitumen and elastomeric resins for producing asphaltic plug joints and for sealing jobs

POLYSTRADA SEALANT is a bituminous mastic formulated with bitumen and elastomeric resins ideally suited to producing asphaltic plug joints in road and highway decks. Its special formulation gives the material low viscosity, hence resulting in excellent workability, meaning **POLYSTRADA SEALANT** blends optimally with the aggregates making up the plug joint (usually basalt aggregates). In addition, **POLYSTRADA SEALANT** gives excellent mechanical properties in terms of elasticity and deformability, which translate into great resistance to fatigue and an impressive ability to absorb thermal expansion and contraction and deflection due to vehicular traffic. Depending on the specific requirements, **POLYSTRADA SEALANT** can also be used for sealing cracks and contraction, expansion or construction joints in both asphalt surfacing and concrete pavements.

TYPICAL APPLICATIONS

- Producing asphaltic plug joints in road decks;
- Roads and highways;
- Airfields;
- Industrial pavements;
- Car parks and rest areas.

ADVANTAGES

- Excellent adhesion to bituminous materials, concrete, fibre-cement, and stone materials of various kinds, allowing the treated part to be completely waterproofed.
- Excellent elasticity, accommodating longitudinal, rotational and transverse movements.
- Excellent workability, allowing surfaces to be made perfectly flush with the adjacent road pavement, reducing dynamic stress and tyre noise.
- Quick and easy application, it can be replaced without damaging the adjacent road surface or the underlying concrete structures (deck slab heads).
- If the road needs to be resurfaced, the product can be covered with the new asphalt mix and is easy to remove by milling.
- Where necessary, it can be laid without having to close the whole road to traffic.

TECHNICAL CHARACTERISTICS

STANDARD	TECHNICAL CHARACTERISTICS	UNIT OF MEASURE	NOMINAL VALUES POLYSTRADA SEALANT
ASTM D 1475	DENSITY	g/cm ³	1,05 - 1,15
EN 1427	SOFTENING TEMPERATURE R AND B °C	°C	≥ 100
EN 1426	PENETRATION @ 25 °C	dmm	50 (±10)
EN 13398	ELASTIC RECOVERY @ 25 °C, 50 mm/min	%	≥ 85
-	MINIMUM OUTSIDE APPLICATION TEMPERATURE	°C	> 5
-	PRODUCT TEMPERATURE FOR APPLICATION	°C	160 - 200

PACKAGING

PRODUCT	PACKAGING	WEIGHT kg	PALLET
POLYSTRADA SEALANT	Cardboard boxes	25	45 boxes

STORAGE

Shelf life of 2 to 3 years in sealed pack. Keep the product in a dry place, out of direct sunlight, protected from heat sources and freezing temperatures.

INSTALLATION TIPS

Once the existing pavement has been cut away from the deck joint, the joint "box" should be cleaned, dried and any residual oil or grease removed. A suitable hot lance or compressed air should be used to eliminate any residual moisture. If the surface is dusty, we recommend using a bituminous primer like POLYPRIMER HP 45 Professional.

The asphaltic plug joint is produced using a hot mixing process: the **POLYSTRADA SEALANT** bituminous mastic and aggregates are heated to the mixing temperature in the melting vessel. The plug joint will fill the whole patch of asphalt cut away all the way down to the level of the concrete structure, adhering fully to the vertical faces of the existing pavement and to the concrete below.

The surface of the underlying deck structures must be free of debris across the full width of the deck, while the area excavated for the asphaltic plug joint, including the vertical faces, must be cleaned thoroughly with compressed air, dried and heated. The surfaces forming the sides of the excavated area must be treated with primer or with hot-poured mastic itself.

In the joint opening between the two deck slabs, a drainage strip made from **POLYSTRADA SEALANT** elastomeric bituminous membrane (5 mm, 33 cm high) must be installed, attaching it to the surface of the deck structure's concrete slabs using bituminous primer from the POLYPRIMER range.

You are advised to install a suitably wide steel bridging plate across the opening between the two decks on top of the drainage strip. Additional **POLYSTRADA SEALANT** bituminous mastic should be hot-poured over said plate. The aggregate should be mixed with a suitable amount of **POLYSTRADA SEALANT** (approx. 10%-20% of the weight

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of the aggregate) in a suitable portable heated mixer. Next, the resulting mix should be laid and compacted into the joint box in layers no more than 10 cm thick, repeating until you reach the level of the existing adjacent pavement riding surface.

Once you have reached the level of the riding surface, you need to hot-pour enough **POLYSTRADA SEALANT** over the surface of the joint so that it percolates down to completely fill all remaining voids within the previously laid and compacted plug joint. The end finish should leave the surface of the joint completely flush with the existing pavement and with no protuberances.

SAFETY REGULATIONS

The product manufactured by Polyglass SpA, are made from bitumen distilled from crude oil and do not contain tar (derived from coal), asbestos or chlorine.

DISCLAIMER

The values given are approximate average data relating to the current product range and may be edited or updated by Polyglass SpA at any time without any prior notice.

As Customer or User, it is your responsibility to check that the technical data sheet you have is valid for the batch of product in your hands and, whatever the case, that you have the latest version issued.

Always refer to the latest up-to-date version of the Technical Data Sheet and relevant Declaration of Performance, both of which you can find on our site www.polyglass.com.

As the End User, it is your responsibility to check that the product is fit for its intended purpose.

PRODUCT FOR PROFESSIONAL USE

Given the variety of situations in which the product can be used, the diversity of substrates and its multiple possible uses within COMPLEX WATERPROOFING BUILT-UP SYSTEMS, Polyglass SpA cannot be held responsible for the results achieved in terms of either function or looks. Rev. 1-23

50217 - 03/23



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REV. 1-23