ROOFTEC POLY-GUARD PU JOINT SEALANT

DATA SHEET

ROOFTEC
POLY-GUARD PU JOINT SEALANT

Rooftec Poly-Guard PU Joint Sealant is a low modulus expansion joint sealant. It displays excellent thixotropy allowing it to be used in very large expansion joints. Cures by atmospheric reaction to produce a joint sealant with a 50% movement accommodation factor with excellent adhesion on substrates traditionally problematic for PU sealants including glass, aluminium, steel and polycarbonate, etc. The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions.

RECOMMENDED FOR:

Sealing joints in:

• in-situ concrete • precast concrete panels • brick and block work • water tanks and swimming pools • metal frames • aluminum windows and panels • irrigation channels • glass • granite and marble.

FEATURES AND BENEFITS:

- No bubbling/swelling upon curing in difficult climatic conditions.
- Excellent Thixotropy.
- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- Excellent extrusion, tooling and storage stability over wide range of climatic conditions.
- Excellent chemical resistance, suitable for sealing joints in swimming pools and chemically treated water.
- Low modulus, joint movement accommodation 50%.
- Microorganism and fungus resistant.
- Excellent heat resistance, suitable for application where exposure to temperatures >60°C take place.
- Resistance to cold: The sealant remains elastic even down to -40°C.

LIMITATIONS:

Not recommended for:

- Not recommended for direct application on unsound substrates.

  In this case, the substrate must be primed, which will re-enforce the concrete and produce a strong durable substrate for sealant application.
- Highly porous substrates, dusty surfaces or poorly compacted concrete, must have their porous bond area surfaces thoroughly sealed to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises.

COMPLIANCE - CERTIFICATION:

- The adhesion strength of PU Joint Sealant exceeds the requirements of EOTA (European Organization of Technical Approval).
- CE certified according EN 1504-2:2004.

APPLICATION PROCEEDURE:

Clean joint thoroughly, and ensure that no oil, grease and wax contaminants, silicone remains are present.

For many applications, primer is not required. In the case of application on very porous substrates, a primer is recommended. Bond area surfaces thoroughly to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises. A primer is recommended.

Apply backing material such as open cell polyurethane or a closed cell polyethylene backing rod. Although both types of backing rod are recommended, care must be taken when using the closed cell polyethylene rod that the outer skin not be punctured as in rising temperature conditions it may cause bubbling. Backing rod application is important as it ensures that the correct width to depth ratio is achieved to provide a firm backing against which the sealant can be tooled off.

Slide the sealant into the applicator gun, cut off the very end of the sealant packaging and fit the gun with the nozzle that has been cut to deliver the right bead size.

Extrude the sealant into the joint ensuring that no air is trapped in the joint. Tooling is recommended immediately after the application of sealant.

The ratio width to depth should be 2:1 subject to a minimum depth of 10mm.

CONSUMPTION:

Linear meters per 600cc sausage:

WIDTH / DEPTH	5mm	10mm	15mm	20mm	25mm
5mm	24	12			
10mm			4	3	2.4
15mm					1.6

SHELF LIFE:

12 months minimum for 600cc sausages and 6 months for 300cc cartridges in the original packaging when stored in dry places and at temperatures of 5-25°C. Once opened, use as soon as possible.

SAFETY INFORMATION:

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

TECHNICAL SPECIFICATIONS

PROPERTY	UNITS	METHOD	SPECIFICATION
Specific weight	gr/cm^3	ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1.45
Tack free time, @ 77°F (25°C) & 55% RH	hours	-	2.5-3.5
Cure Rate	Mm/day	-	2-3
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	±27
Modulus at 100% elongation	(N/mm^2)	ASTM D412 / EN-ISO-527-3	0.3
Elongation	%	ASTM D412 / EN-ISO-527-3	>700
QUV Accelerated Weathering Test (4hr UV, at 60°C (UVB- Lamps) & 4hr COND at 50°C)	-	ASTM G53	Passed (after 2000hr)
Thermal Resistance (100 days, 80°C)	-	EOTA TR011	Passed
Toxicity	-	-	No restrictions after full cure
Resilience	%	DIN 52458	>90
Hydrolysis (8% KOH, 15 days @ 50°C)	-	-	No elastomeric property change
Hydrolysis (H2O, 30 days- cycle 60-100°C)	-	-	No elastomeric property change
HCl (PH=2, 10 days @RT)	-	-	No elastomeric property change
Adhesion to concrete	kg/cm^2 (N/mm^2)	ASTM D4541	> 20 (> 2)

EU-Declaration of Performance

In accordance with Annex III of Regulation (EU) No.305/2011 (Construction Product Regulation)

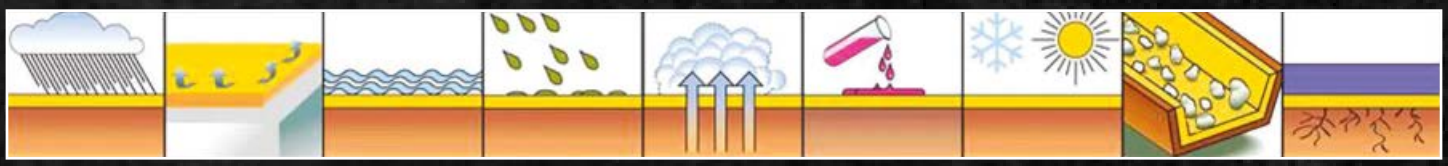
For PU Joint Sealant. No: CPR-5113/850/14-3. CPR-5113/850/14-4

The notified body (0761): Materiaiorufarsai (MPA) fur das Bauwesen, BeethovenstratBe 52, D-38106 Braunschweig

EN 15651 – part 1 & part 4

The product is used as a single-component, polyurethane-based joint sealant for façade elements and for walkways.

ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
Reaction to fire	Class E	EN ISO 11925-2
Elastic recovery (%)	>70%	EN ISO 7389
Resistance to flow (mm)	≤3mm	EN ISO 7390
Tensile properties – secant modulus – at 23°C	≤0.4MPa	EN ISO 8339
Tensile properties – secant modulus – at -30°C	≤0.9MPa	EN ISO 8339
Tensile properties at maintained extension	NF	EN 8340
Adhesion/cohesion properties at variable temperature	NF	EN ISO 9047
Loss of mass/volume	≤10%	EN ISO 10563
Tensile properties at maintained extension after immersion in water (4 days)	NF	EN ISO 10590
Tensile strength (movement capacity 50%)	NF	EN ISO 8340
Outdoor Requirements:		
Tensile properties at maintained extension after immersion in water (28 days)	NF	EN ISO 10590
Tensile properties at maintained extension after immersion in saltwater (28 days)	NF	EN ISO 10590
Adhesion/cohesion properties after exposure to heat, water and artificial light through glass	NF	EN ISO 11431



Certified quality, environmental and occupational health & safety management systems: ISO 9001/14001 & ISO 45001.

SAMAC

www.samacfixings.co.uk