FLS 108 Joint Sealant

Product Description

FLS 108 is a single component, polyurethane based, expansion joint sealant used as a preparatory product and sealant prior to the application of Fatra's liquid applied waterproofing systems.

FLS 108 is a low modulus sealant, especially formulated to contain both PU and silylated-PU technology, resulting in a sealant which includes the best of both technologies. It has been modified in order to give enhanced thixotropic properties. FLS 108 cures by reaction with atmospheric humidity to produce a joint sealant with a 50% joint movement accommodation factor and excellent adhesion on substrates traditionally problematic for PU sealants, e.g. glass, aluminum, steel, polycarbonate, etc.

Additionally FLS 108 has been modified in order to have an extrusion profile identical to hybrid PU or MS technology. The extrusion rate and tooling of the sealant remain the same throughout a wide range of temperature and humidity conditions and the sealant is easy to apply even in very low temperatures.

Features & Benefits

- 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%
- Micro-organism and fungus resistant
- Application under water immersion possible
- 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

Application of FLS 108 Joint Sealant

Prior to the application of the Fatra liquid applied waterproofing products, it is necessary to treat all construction joints and details with FLS 108 Joint Sealant.

Clean the joint thoroughly and ensure that no oil, grease, wax contaminants or silicone remains present. In the case of application on very porous substrates, bond area surfaces thoroughly to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises.

A fillet should be created on all physical changes of direction of the liquid, including upstands, rooflights, pipe work and construction joints.

FLS 108 is supplied in a 600 cc foil and should be installed with the appropriate applicator gun. Slide the sealant into the applicator gun, cut off the 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. Wide joints will require more than one pass of the application gun to make sure that sealant is in full contact with all parts of the joint.

For large voids and joints apply a backing rod or closed cell polyethylene foam as it is important to ensure that the correct width to depth ratio is achieved. The ratio of width to depth should be 1:1. Tooling of FLS 108 Joint sealant is recommended immediately after its application.

Consumption: Linear meters per 600cc foil

Width x Depth	5mm (w)	10mm (w)	15mm (w)	20mm (w)	25mm (w)
5mm (d)	24	12	8	6	4.8
10mm (d)	12	6	4	3	2.4
15mm (d)	8	4	2.67	2	1.6

Limitations

Not recommended for direct application on unsound concrete. In this case the substrate must be primed with FLS 102 Next day primer which will reinforce the substrate and provide a strong durable surface for sealant application.

Highly porous substrates, dusty surfaces or poorly compacted concrete must have their porus bond area surfaces thoroughly sealed to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises.

Packaging

600cc foil

Shelf life

Can be kept for a minimum 12 months in the original unopened packaging when stored in dry places and at temperatures of 5°C to 25°C. Once opened use as soon as possible.

Technical specifications

Property	Units	Method	Specification
Specific weight	gr/cm^3	-	± 1.49
Tack free time, @77°F (25°C) & 55% RH	hours	-	2.5 to 3.5
Cure rate	Mm/day	-	2 to 3
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ATSM D2240 / DIN 53505 / ISO R868	± 27
Modulus at 100% elongation	N/mm²	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°C to 100°C)	-	-	No elastomeric property change
HCl (PH=2, 10 days at RT)	-	-	No elastomeric property change
Adhesion to concrete	Kg/cm² (N/mm²)	ASTM D4541	> 20 (> 2)

Technical characteristics

Characteristic	Performance	Harmonised 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	**Performance**	**Harmonised Technical Specification**
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