FLS 107 Joint Sealant

Product Description

FLS 107 is a low modulus expansion joint sealant, especially formulated to contain both PU and silylated-PU technology, thus giving rise to a sealant which includes the best of both technologies. It has been modified in order to give enhanced thixotropic properties. It 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 the sealant 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.
The sealant is easy to apply even in very low temperatures and the storage stability is unlike any polyurethane sealant in the market.

Recommended uses

Sealing joints in:

- Insitu concrete
- Expansion concrete plates
- Precast panels
- Brick and block work
- Water tanks and swimming pools
- Metal frames
- Aluminium windows and panels
- Irrigation channels
- Glass and mirror
- Granite and marble

Limitations

Not recommended for direct application on unsound substrates. In this case the substrate must be primed with MICROPRIMER which will reinforce the concrete and provide a strong durable substrate for sealant application.
Highly porous substrates, such as poorly compacted or cracked 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.

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%.
- Microorganism 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

Consumption

Linear meters per 600cc sausage.

(w) Width

(d) Depth

	5mm (w)	**10mm (w)**	**15mm (w)**	**20mm (w)**	**25mm (w)**
5mm (d)	24	12			
10mm (d)			4	3	2.4
15mm (d)					1.6

Technical specifications

Property	Units	Method	Specification
Specific weight	gr/cm^3	ASTM D1475 / DIN 53217 / ISO 2811, @ 20^0C	1.2
Tack free time, @77°F (25°C) & 55%RH	hours	-	3,5-4,5
Cure rate	Mm/day	-	3-4
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ATSM D2240 / DIN 53505 / ISO R868	+25
Modulus at 100% elongation	N/mm^2	ASTM D412 / EN-ISO-527-3	0.2
Elongation	%	ASTM D412 / EN-ISO-527-3	>900
QUV accelerated weathering test (4hr UV at 60°C (UVB-Lanps) & 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	>80
Hydrolysis (8% KOH, 15 days at 50°C)	-	-	No elastomeric property change
Hydrolysis (H2O, 30 days cycle 60-100°C)	-	-	No elastomeric property change
HCl (PH=2, 10 days at RT)	-	-	No elastomeric property change
Adhesion to concrete	Kg/cm^2 (N/mm^2)	ASTM D4541	>20 (>2)

Application Procedure

Clean joint thoroughly, and ensure that no oil, grease and wax contaminants, silicone remains are present. For most applications, primer is not required. 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. The recommended primer is MICROPRIMER. 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 provides 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. Wide joints will require more than one pass of the application gun to make sure that sealant is in full contact with the sides and bottom of 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

Packaging

600cc saussages 300cc cartridges

Shelf life

Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of 5ºC to 25ºC. Once opened use as soon as possible.