

## Technical Datasheet

# JOINT SEALANT 50FC-S

### GENERAL DESCRIPTION

Unique one component polyurethane-based fast curing sealant.

Joint Sealant 50FC-S is a fast curing joint sealant, general purpose adhesive that has been specifically formulated to contain both PU and silylated PU technology, thus giving rise to a sealant, which includes the best properties of both technologies. The material has been modified in order to give enhanced thixotropic properties.

### BENEFITS

Joint Sealant 50FC-S cures rapidly through reaction with atmospheric humidity to produce a sealant with excellent early grab adhesion even on substrates traditionally problematic for PU sealants, e.g. aluminum, steel, polycarbonate etc. Additionally, the sealant has been modified in order to have extrusion profile identical to Hybrid PU.

### APPLICATION PROCEDURE

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, bond area surfaces thoroughly to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises. First applied the filler, for example a 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. 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.

### RECOMMENDED FOR

HYPERSEAL 50FC-S is recommended for sealing joints in constructions, especially for sealing the joints of industrial floors, but also for:

- Metal frames
- Aluminum windows and panels
- Surfaces from glass, granite, marble, concrete

### CONSUMPTION

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

(for best results, the ratio width / depth should be 2: 1, to a minimum depth of 10 mm)

### LIMITATIONS



Not recommended for direct application on unsound substrates. In these cases it is recommended to use a primer which will reinforce the concrete and produce a strong durable substrate for sealant application.

Very 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.



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### 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.
- 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.

### SHELF LIFE

12 months minimum in the original packaging when stored in dry places and at temperatures of 5-25 oC. Once opened, use as soon as possible.

### TECHNICAL SPECIFICATIONS

PROPERTY	SPECIFICATION	METHOD
Tack free time	1,5 - 2,5 hours	-
Cure rate	3-4 mm/day	-
Service temperature	-40 to 80°C	-
Hardness	± 45 Shore A	ASTM D2240/ DIN 53505/ISO R868
Modulus at 100% elongation	0.7 N/mm <sup>2</sup>	ASTM D412/EN-ISO-527-3
Elongation	> 700%	ASTM D412/EN-ISO-527-3
Tensile strenght at break at 23°C	> 2 N/mm <sup>2</sup>	ASTM D412/EN-ISO-527-3
QUV Accelerated Weathering Test (4 hr UV, at 60°C (UVB-Lamps) & 4 hr COND at 50°C)	Passed (after 2000 hours)	ASTM G53
Thermal Resistance (100 days, 80°C)	Passed	EOTA TR011
Toxicity	No restrictions after full cure	-
Resilience	> 80%	DIN 52458
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	> 20 kg/cm <sup>2</sup> (>2 N/mm <sup>2</sup> )	ASTM D4541

### PACKAGING

Sausage 600 ml; 20 sausages/box;

