Hypertectum Tectflex-PU

One-component, low-modulus polyurethane sealant for expansion joints, combining polyurethane and hybrid technology

JOINT MOVEMENT	SERVICE TEMPERATURE	ELONGATION AT BREAK	PACKAGING
50 %	−40 to +80 °C	> 900 %	600 cc sausage

01 DESCRIPTION

Hypertectum Tectflex-PU is a polyurethane sealant for expansion joints. It combines polyurethane technology with hybrid technology, resulting in a sealant with excellent properties. It cures by reacting with atmospheric humidity to form a low-modulus sealant (joint movement accommodation 50 %) with excellent adhesion, including to substrates that are traditionally difficult for polyurethane, such as glass, aluminium and polycarbonate. Its extrusion is identical to that of hybrid and MS sealants, and extrusion and application stay easy whatever the climate, even in winter at very low temperatures.

02 RECOMMENDED FOR

Sealing joints in:

- Buildings
- Expansion joints
- Precast concrete elements
- Metal frames
- Swimming pools and water tanks
- Aluminium panels
- Glass
- Granite and marble

Suitable for facade joints and floor joints, indoors and outdoors.

03 LIMITATIONS

- Do not apply directly to unsound substrates. In that case, first apply a primer to consolidate the substrate and provide a sound base for the sealant.
- On porous substrates, the pores must be sealed to prevent bubbles forming while the sealant cures.
- The sealant has good UV resistance and is suitable for exterior use. To preserve the colour and avoid chalking, it is recommended to overpaint it with a good-quality acrylic paint.

04 MAIN FEATURES

- Excellent adhesion to many types of substrates, even without a primer
- Excellent extrusion and storage stability, regardless of temperature and humidity
- Excellent chemical resistance: ideal for sealing joints in pools and tanks containing chemically treated water
- Low modulus: joint movement accommodation 50 %
- Resistant to micro-organisms and fungi
- Can be applied under water
- Excellent heat resistance: recommended for joints exposed to high temperatures
- Remains elastic down to −40 °C

05 APPLICATION PROCEDURE

Joint preparation	The joint must be clean and free of oil, loose material and silicone residue.
Priming	In many applications no primer is needed. On porous substrates, seal the pores to prevent bubbles forming during curing. A primer is also recommended when the joint sides are damp. Contact ETS Europe for primer advice.
Backing rod	Insert a backing rod (open-cell polyurethane foam or closed-cell polyethylene foam) to set the joint depth and give the sealant a firm base. Take care not to damage the outer skin of the backing rod, as this can cause bubbles, especially when temperatures rise.
Application	Place the sausage in the gun and cut the end of the aluminium. Fit the nozzle, cut to suit the joint size. Apply the sealant in a continuous movement, avoiding trapped air. Wide joints need more than one pass to ensure proper contact with the joint sides. Tool the sealant immediately after application.
Joint dimensions	For best results, use a width-to-depth ratio of 2:1, with a depth of at least 10 mm.

06 CONSUMPTION

Joint length in metres per 600 cc sausage:

WIDTH × DEPTH	METRES PER SAUSAGE
5 mm × 5 mm	24
10 mm × 5 mm	12
15 mm × 10 mm	4
20 mm × 10 mm	3
25 mm × 10 mm	2.4
25 mm × 15 mm	1.6

07 PACKAGING

600 cc sausage

08 STORAGE

At least 12 months in the original unopened packaging, in a dry place at 5–25 °C. Once opened, use immediately.

09 SAFETY

See the Safety Data Sheet.

10 TECHNICAL DATA

PROPERTY	UNIT	METHOD	VALUE
Skin formation time (25 °C, 55 % RH)	h	–	3.5–4.5
Curing rate	mm/day	–	3–4
Service temperature	°C	–	−40 to +80
Hardness	Shore A	ASTM D2240 / ISO 868	± 25
Modulus at 100 % elongation	N/mm²	ASTM D412 / EN ISO 527-3	0.2
Elongation at break	%	DIN 52455 / EN ISO 527-3	> 900
Elastic recovery	%	DIN 52458	> 80
Adhesion to concrete	kg/cm² (N/mm²)	ASTM D4541	> 20 (> 2)
QUV accelerated weathering (4 h UV at 60 °C, UVB lamps + 4 h condensation at 50 °C)	–	ASTM G53	Passed (> 2,000 h)
Thermal resistance (100 days at 80 °C)	–	EOTA TR011	Passed
Hydrolysis (8 % KOH, 15 days at 50 °C)	–	–	Unaffected
Hydrolysis (H_2O, 30-day cycle, 60–100 °C)	–	–	Unaffected
HCl (pH 2, 10 days at RT)	–	–	Unaffected
Toxicity	–	–	No restrictions after curing

The information in this data sheet reflects current techniques and our best knowledge. Because the use of the product is beyond our control, neither the manufacturer nor the distributor can be held responsible for results. Instructions not covered by this data sheet require written confirmation from head office. Our general terms and conditions apply. This data sheet cancels and replaces all previous versions.