

TECHNICAL DATA SHEET

PENOSIL SpeedFix Seal&Bond PU 860

PENOSIL SpeedFix Seal&Bond PU 860 is a flexible one-component polyurethane-based adhesive sealant, with fast ambient moisturecuring and high performance. It preserves all its elasticity and bonding properties, remaining stable and unaged by atmospheric agents.

Main benefits

- Strong adhesion to a wide range of substrates without using a primer
- High elasticity and great movement capability
- Excellent resistance to the weather and ageing
- Suitable for joints up to 40 mm width
- Good vibration and impact absorption
- Does not sag or create bubbles
- Non-corrosive
- Extremely long service life
- Can be painted

Fields of application

- Ready for use and its application is simple, quick and easy.
- Used as a sealing and bonding product in construction, for vertical and horizontal expansion joints, joints resistant to vehicle and people traffic, concrete walls, precast elements, joints in drinking water tanks, fixing and bonding of rooftiles, gutters, base boards, etc.
- Provides good noise insulation.

Adhering

- Concrete
- Stone
- Brick
- Ceramic tiles
- Rooftiles
- Wood
- Aluminium
- Glass
- Polyester
- Other common construction materials

Application instructions

Application conditions

Application temperature between +5°C and +35°C.

Surface preparation

Cleaning and joint preparation: the substrates (edges of the joints) must be prepared by cleaning and must be dry and free of dust, grease and other contaminants that may affect adhesion. If the substrates need to be cleaned, use methylethylketone (MEK), acetone or degreaser. For materials sensitive to ketones, use ethanol.

Check the compatibility of the cleaner with the substrates. When using solvents, remove all sources of ignition and carefully follow the safety and handling instructions provided by the manufacturer.

If necessary, clean the metal surfaces first (especially if there is rust). After cleaning with a solvent, leave to dry for at least 10 minutes. It is recommended to brush concrete, in particular cement residue, with a wire brush and then remove the dust. The edges of the joint can be protected with protective tape.

Priming: PENOSIL SpeedFix Seal&Bond PU 860 has excellent adhesion without the need for priming on the most common substrates. Nevertheless, a preliminary adhesion test is recommended on all surfaces, in case prior priming is required to improve adhesion.

Application method

Joint filler: if necessary, a joint filler or PENOSIL BACKER ROD PE 450 can be used as a back-up material to limit the depth of the joint and prevent the sealant adhering to the joint base. Make sure you choose the right backing strip diameter (at least 25% wider than the width of the joint).

Joint design: the width of the joint must be designed to accommodate the movement capability of the sealant and the substrate. The dimensions of the joint must match the movement capability of the sealant, with a maximum allowed value of 25%.

Use closed cell polyethylene joint filler (PENOSIL BACKER ROD PE 450) as a back-up material to limit the depth and prevent adhesion on three sides.

Adhesive sealant: after the preparation of the substrate, uniformly apply the adhesive sealant with a manual or pneumatic gun, while ensuring good contact with the surfaces to seal and join.

Smoothing and finishing: after the application of the adhesive sealant, the joint can be smoothed before the formation of the skin by using a spatula or a finger wettened in soapy water. Immediately remove the protective tape, if used.

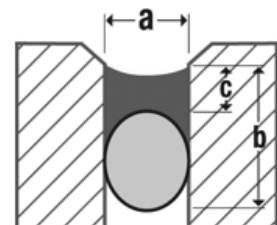
Cleaning

Tools can be cleaned with methylethylketone (MEK), acetone or PENOSIL Cleaning Wipes before the sealant has fully cured. After curing, they can only be mechanically cleaned.

Joint design

General recommendations

General statement:	the ideal joint has a 2:1 ratio (width:depth)
Minimum joint dimensions:	5-6 mm wide x 5-6 mm depth
Up to 12 mm wide:	width =depth
From 12 mm to 24 mm wide:	depth = ½ width
Wider than 24 mm:	depth = 12-15 mm



Joint dimensions

- a Joint width
- b Joint depth
- c Sealant depth

- Sealant
- Backing material

Coverage

Estimated consumption in meters per 300 ml cartridge (approx.):							
Joint width (a):	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm
Length (meter):	3,8	2,5	1,5	1,0	0,7	0,5	0,4
Estimated consumption in meters per 600 ml bag (approx.):							
Joint width (a):	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm
Length (meter):	7,5	5,0	3,0	2,0	1,4	1,0	0,9

Technical data

Properties	Value	Unit
Explanations of technical data	Pasty thixotropic	
Density (DIN 53 479-B)	1,13...1,17	g/ml
Weathering resistance	Excellent	
UV resistance	Excellent	
Skin forming time	~50	min
Curing rate	>3	mm/24h
Loss of volume (ISO 10563)	≤10	%
Resistance to flow (ISO 7390)	<3	mm
Application temperature	+5...+35	°C
Service temperature (cured sealant)	-40...+80	°C
Movement capability	±25	%
Shore A hardness after 14 days of curing (ISO 868)	~40	
E-Modulus 100% (ISO 37)	~0,3	N/mm ²
Tensile strength (ISO 37)	~1,4	N/mm ²
Elongation at break (ISO 37)	>600	%
E-Modulus 100% (ISO 8339)	~0,4	N/mm ²
Elongation at break (ISO 8339)	>400	%
Tear strength (ISO 34)	~8,5	N/mm
Fire performance	Class E	

The values specified were obtained at +23 °C and 50% relative humidity, unless otherwise specified. These values may vary depending on environmental factors such as temperature, moisture and type of substrates.

Technical classification and certificates

- SNJF Certificate (Façade): Class F 25E
- ISO 11600: Class F-25HM
- ASTM C-920: Type S, Grade NS, Classes 25 and 50, uses NT, A and M
- CE Marking: EN15651-1 F-EXT-INT-CC
- EN15651-4PW-EXT-INT-CC
- Complies with the requirements of the International Maritime Organisation (IMO 653)

Colour

White, grey, black and brown.

Other colours on request.

Package

Aluminium cartridges with 300 ml, 24-unit boxes (56-box pallets).

Aluminium bags with 600 ml, 20-unit boxes (36-box pallets).

Other formats on demand.

Storage conditions and shelf life

Guaranteed storage time 12 months from the date of manufacture if stored in a closed original package in a dry, cool place between +5 °C and +25 °C.

Limitations

- Adhesion tests on any unknown material are recommended before use.
- There is no adhesion to PE, PP, PTFE (Teflon®).

Safety regulations

Ensure sufficient ventilation during application and wear necessary personal protective equipment.

More specific safety information is available on the safety data sheet (SDS).

Note: The instructions in the present documentation are based on tests carried out by the manufacturer and are presented in good faith. Due to variations in materials and substrates as well as the various application possibilities that are beyond our control, the manufacturer is not liable for the results achieved. In any case, it is recommended to test the product suitability at the place of application. Manufacturer reserves the right to modify products without prior notice. This TDS replaces and supersedes all previous data sheets on the same product.