

TECHNICAL DATA SHEET

PENOSIL Premium PU-Sealant High Modulus

High-quality moisture-curing sealant with a high elasticity modulus, especially resistant to mechanical load. Adheres to most building materials such as concrete, brick, metal and wood materials, glass and plastic surfaces, painted surfaces (including 2-component paint systems). Resistant to water, cleaning agents, oils, carbohydrates, acids and diluted alkali. Insulates and seals in both indoor and outdoor conditions.

- High movement capability ($\pm 25\%$) and high modulus sealant.
- Wheelmark approved
- Excellent adhesion to a wide range of porous and non-porous substrates.
- Permanently elastic.
- Cured sealant is UV, moisture and weatherproof.
- Cured sealant can be sanded and painted.

Field of applications

Sealing joints in concrete buildings, especially shrinking control joints of floors. Sealing welding joints. Sealing and noise suppression in wagon building and in metal joints. Sealing and adhesion in ship and boat building (ship deck building). Sealing of varnished surfaces. Joining elements made from porcelain, steel, stainless steel, plastic (polyester and many PVCs), painted wood, concrete and bricks.

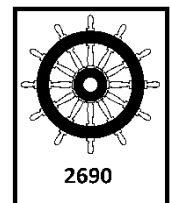
Technical classifications and certificates

Product has been tested and is classified accordingly:

Sealant for facade for interior and exterior application, intended for use in cold climate.
EN 15651-1:2012: Type F-EXT-INT: CLASS 25HM

Sealant used for pedestrian walkways for interior and exterior application, intended for use in cold climate.

EN 15651-4:2012: Type PW-EXT-INT-CC: CLASS 25HM



Application conditions

Application temperature between $+5\text{ }^{\circ}\text{C}$ to $+35\text{ }^{\circ}\text{C}$.

Application instructions

The main concrete drying shrinkage has to be completed prior sealing the shrinking control joints. The surfaces must be clean from dust, loose particles and oil. If needed, the joints should be primed with a suitable primer before sealing. After priming, backer rod can be installed to the joint. The purpose of the backer rod is to ensure correct joint thickness, avoid three-sided adhesion and give the sealant a correct form. The diameter of the Backer Rod should be approximately 25% larger than the joint width. The sealant joint width:depth ratio is in the range from 1:1 to 3:1. The ideal joint has a 2:1 width:depth ratio.

310 ml cartridge: Cut off the threaded end of the cartridge and screw on the application nozzle for directing sealant. Cut the threaded end in a way where a suitable opening for application is produced. Place the cartridge together with the applicator in the gun and fill the installation nozzle with sealant, by repeatedly pressing the gun trigger.

600 ml foil package: Open the application nozzle of the gun, insert the package in the gun and open the applicator side by removing the fastening clamp. Place the applicator nozzle on the opened end and screw on the cap.

Apply sealant in the joint by repeatedly and evenly pressing on gun trigger and smoothly dragging the nozzle along the joint. Wider joints should be covered in three application sessions, by covering the two side parts and thereafter the bottom of the joint. Press the sealant thoroughly against the edges and the joint bottom, until no air bubbles emerge anymore. After application, smooth the surface with a rubber silicone scraper or with the help of soapy water and remove excess material. Remove the tape from the joint edges.

Cleaning

Uncured sealant can be removed with lacquer petroleum, hands can be cleaned with Penosil Premium Cleaning Wipes. Cured sealant can only be removed mechanically.

Technical data

Properties	Unit	Value
Skin forming time	Minute	approx. 70
Curing time	mm/24 h	≥ 3
Density	g/cm ³	1,16±0,05 - black 1,18±0,05 – other colours
Properties of cured sealant		
Modulus at 100%, ISO 8339	MPa	approx. 0,40
Modulus at break, ISO 37	MPa	approx. 1,40
Elasticity recovery, ISO 7389	%	≥70
Elongation at break, ISO 8339	%	> 600%
Movement of the joint	%	25
Hardness (Shore A) (ISO 868)		approx. 40
Temperature resistance after curing	°C	-40 to +80

The parameters indicated have been measured at +23 °C and 50% relative air humidity.

Colour

Grey, brown, white, black.

Package

310 ml cartridge, 12 pcs in a box.

600 ml foil package, 20 pcs in a box.

Storage conditions

Guaranteed storage time 18 months starting from the date of manufacture if stored in a closed original package in a dry place between +5 °C and +30 °C.

Limitations

Do not use as a glazing sealant, on bituminous substrates or on building materials which might bleed oils, plasticizers or solvents (e.g. natural rubber, chloroprene, EPDM, ...).

There is no adhesion to PE, PP, PTFE (Teflon®). Due to the wide variety of possible substrates, we recommend a preliminary compatibility test.

Not suitable to use on natural stones (e.g. marbel, granite, etc.), as it can cause staining.

Make an adhesion test of silicone-coated surfaces in order to verify the chemical and adhesion compatibility of materials, also check the colour.

Only completely cured sealant may be painted with an adhering dispersion paint (acryl, vinyl). A paint test should be made before. Movement of the joint may cause cracking in the painted surface. As polyurethanes are sensitive to UV, clear colours may change in time. This change only concerns the appearance and has no effect on the mechanical properties of the cured product.

Safety regulations

Ensure sufficient ventilation during application. Keep out of the reach of children. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with water and seek medical advice. Detailed safety information is available on 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.