

## TECHNICAL DATA SHEET

# PENOSIL Aquarium Silicone 310

Acid-curing silicone sealant that cures at room temperature under the action of atmospheric moisture. Specially designed for waterproof seals on a variety of non-porous substrates.

- Works with fresh and salty water
- Fast curing
- Safe for life forms
- Non-sagging
- UV proof
- Excellent processing and smoothing properties
- Permanently elastic

### Fields of application

- Constructing glass aquariums
- Constructing terrariums and other glass structures
- For bonding glass blocks
- Sealing joints exposed to mechanical stress.

### Adhering

- Glass
- Ceramics
- Enamel
- Plastics: epoxide, polyesters, polyacrylates, laminates
- Vitrified surfaces
- Fibreglass
- Anodized aluminium

### Application instructions

#### Application conditions

Application temperature between +5°C and +40°C.

#### Surface preparation

The surfaces must be dry, clean from dust, loose particles, and oil. Non-porous surfaces should be cleaned with solvent and a clean, non-fluffy cotton cloth. Solvent excess should be removed before evaporating with a clean cloth.

#### Application method

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.

Apply sealant in the joint by repeatedly and evenly pressing on gun trigger and smoothly dragging the nozzle along the joint. After application, smooth the surface with a suitable tool (e.g., spatula) and remove excess material.

If necessary, the adjacent surfaces of the joint should be protected to avoid staining. Usually, masking tape is being used for this. Protective masking tapes should be removed before the sealant's skin is formed.

In wider and movable joints, backer rod should be used as a back-up material, to ensure the correct thickness and shape of sealant joint and to avoid three-sided adhesion.

Ensure adequate ventilation in all joint locations. During the curing process, make sure that no impurities can settle on the surface and that the joint surface is not affected by mechanical load.

## Cleaning

Uncured sealant can be cleaned with solvents like white spirit, acetone or with special cleaning wipes. Cured sealant can be removed mechanically. If needed silicone remover should be used.

## Technical data

Properties	Value	Unit
Basis	Acetoxo	
Density (DIN 53 479-B)	1,03	g/ml
Tack free time	4...6	min
Skin forming time	15...20	min
Curing rate	3...4	mm/24h
Loss of volume (ISO10563)	<5	
Resistance to flow (ISO 7390)	0	mm
Intensity of microbiological grows (ISO 846)	2	
Application temperature	+5...+40	°C
Service temperature	-40...+80	°C
Movement capability (ISO 11600)	±20	%
Elastic recovery (ISO 7389)	>95	%
Shore A hardness (ISO 868)	30	
<b>Properties of cured sealant</b>		
E-Modulus 100% (ISO 8339)	0,35...0,4	N/mm <sup>2</sup>
Tensile strength (ISO 8339)	0,6...0,7	N/mm <sup>2</sup>
Elongation at break (ISO 8339)	>250	%
E-Modulus 100% (ISO 37)	0,27...0,29	N/mm <sup>2</sup>
Tensile strength (ISO 37)	1,7...1,9	N/mm <sup>2</sup>
Elongation at break (ISO 37)	>1000	%

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

- Sealant for facade for interior and exterior application, intended for use in cold climate  
EN 15651-1:2012: Type F-EXT-INT-CC
- Sealant for sealing glazing application, intended for use in cold climate  
EN 15651-2:2012: Type G-CC
- Sealant used for sanitary applications.  
EN 15651-3:2012: Type S

## Colour

Transparent, black

## Package

300 ml cartridge, 12 pcs in a box.

## Storage conditions and shelf life

Guaranteed shelf life 18 months from the manufacturing date when stored in closed original package in a dry place and protected from direct sunlight at temperatures between +5 °C and +30 °C.

## Limitations

- Do not use 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®).
- We don't recommend this product to be used for natural stone sealing
- Due to the wide variety of possible substrates, we recommend a preliminary compatibility and adherence test. If necessary, prime surfaces to improve adhesion.
- Due to the wide variety of influences during and after application, the customer must always test the product first.
- Please observe the expiration date!

## 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.