

TECHNICAL DATA SHEET

PENOSIL Aquarium Silicone 380

Acetoxy silicone for sealing glass structures

One-part acetoxy silicone system, specially developed for the construction and repair of fresh and sea water aquariums, that cures quickly with atmospheric moisture, producing a flexible rubber with high mechanical characteristics.

Main benefits

- Fast curing
- Permanently elastic after curing
- Excellent adhesion on glass without priming
- UV radiation, weather and ageing resistant
- Seawater and algae resistant
- Resists acids, alkalis and many chemicals
- Permanently watertight
- It does not contain fungicide
- After complete curing it is not toxic to living organisms
- Non-sag
- Does not lose colour
- Easy to apply
- Extremely long service life

Fields of application

- Specifically developed for bonding and sealing full glass constructions as fresh and sea water aquaria and terraria.
- Sealing of joints in aquatic tunnels.
- Sealing of joints in pools and water parks facilities.
- Sealing of greenhouses, showcases and glass constructions.

**Colour**

Black and transparent.

Package

300 ml cartridge, 24 pcs in a box.

Storage conditions and shelf life

Guaranteed shelf life 12 months from the manufacturing date when stored in closed original package in a dry place at temperatures between +5 °C and +30 °C.

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Adhering

- Glass
- Aluminium
- Ceramics
- Metals
- Most plastics
- Vitrified surfaces
- Painted surfaces
- Non-porous surfaces

Technical classifications and certificates

- French VOC-emission class A+

Technical data

Properties	Value	Unit
Basis	Acetoxy	
Consistency	Non-Slump paste	
Density (DIN 53 479-B)	1,03	g/ml
Tack free time	5	min
Skin forming time	5...10	min
Curing Rate	3,6	mm/24h
Application temperature	+5...+40	°C
Service temperature	-40...+150	°C
Elastic recovery (ISO 7389)	>70	%
Shore A hardness (ISO 868)	32	
E-Modulus 100% (ISO 37)	0,60	N/mm ²
Tensile strength (ISO 37)	2,80	N/mm ²
Elongation at break (ISO 37)	450	%

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.

Application instructions

Application conditions

Air temperature during use: +5 °C to +40 °C.

PENOSIL Aquarium Silicone 380

Surface preparation

Substrates (joint flanks) must be clean, dry, and free of dust, grease and other contaminant which may affect the adhesion. Non-porous surfaces (such as aluminium, glass, etc.) should be cleaned with a suitable solvent and thoroughly dried with a clean cloth. Mask off the joint edges.

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.

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.

Minimum bond thickness should be 1 mm. Add sufficient reinforcements to avoid bending of the glass.

Never fill the aquarium until full cure. The sealant must be fully cured, curing time up to 1 week, before it can be transported or filled with water. After curing, rinse the aquarium several times with water, before use.

Cleaning

Uncured sealant can be cleaned with solvents like white spirit, acetone or with PENOSIL Cleaning Wipes.

Cured sealant can be removed mechanically. If needed silicone remover should be used.

Limitations

- As it releases acetic acid during vulcanization, it is not recommended for use on natural stone, marble, granite and alkaline supports (concrete, fibrous cement, mortar, ...).
- It should not be used in contact with metals such as zinc, copper, brass or lead, as it provokes acid corrosion.
- It must not be used to seal laminated glass, as it could attack the PVB (butyral) interlayer.
- It is not suitable for contact with secondary sealant of insulating glass units.
- It should not be applied on bituminous substrates or to materials that bleed oils, plasticizers, solvents or release by-products that may inhibit cure, affect adhesion or discolours the sealant. (e.g. natural rubber, chloroprene, EPDM, ...).
- Joints may not be painted or varnished.
- In spite of being an acetic silicone, after curing, silicone is not toxic for living organisms.

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.

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