

## PRODUCT DATA SHEET

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# FINOTECH® SQ-900

## 2-C-PUR Reaction adhesive

### Product description

FINOTECH® SQ-900 is a 2-component reactive Polyurethane adhesive. Typical application is in the building components industry in the field of aluminum window and door construction, for bonding corner joints (suitable for classic and injection bonding methods)

### Features

- Tough-hard adhesive joint
- Solvent-free
- Thixotropic, does not drop off
- Good weather-proofness
- Can be over-coated with many paint systems
- Can subsequently be powder-coated (30 min/+230 °C)
- If wood is glued, it achieves the durability class D4 as per DIN EN 204.
- Features easy handling of tandem cartridge with static mixer

### Product Characteristics

Mixture FINOTECH® SQ-900 Component A + B

SQ-900 Properties (23°C,50% RH)			
Property	Method	Unit	Value
Color		dry	beige
Density	EN 542 at 20°C	g/m <sup>3</sup>	1.52
Viscosity	at 20°C		Low viscous pasty
Mixing ratio	Parts by volume	A:B	1.0:1.0
Pot life	100 g at 20°C	min	app. 60
Functional Strength	e.g., Corner angel at 20°C	hours	app. 6
Curing time final strength	At +20°C, 50% r.H.	days	app. 7
Processing temperature	Adhesive and substrate	°C	+7 to +30
Applied quantity	per corner angel	g	app. 20
Tensile shear strength	DIN EN 1465, 0,2 mm joint at 20 °C at 80 °C	N/mm <sup>2</sup>	app. 18 app. 9.0

### Application and General Information

The processing times become shorter at +30 °C to approximately half of the time, at +10 °C, they become longer to approx. double of the time.

If permanent humidity impact is expected, the bonded joints/bonded surfaces must additionally be sealed/protected using a "suitable sealant".

Bonding of materials with different longitudinal extension must be assessed regarding their long-term behavior, especially when they are exposed to fluctuating temperature ranges.

The cured mass changes its color due to UV radiation but not its strength in the cured bonded joint.

Pot-life, processing time, as well as the necessary pressing time or fixing time, can only be determined accurately by self-tests because they are strongly influenced by material characteristics, temperature, mixed quantity, applied quantity, and other criterions. For processing, appropriate safety allowances shall be planned in addition to the specified guiding

### Preparation

Acclimatize the product before the application.

The surfaces of the workpieces to be bonded must be dry, and free from dust and grease.

Depending on the material surface, check if the bonding result can be improved by grinding or applying of primer.

Polyolefins (among others PE, PP) cannot be bonded without preparation, e.g., plasma- or corona treatment.

If PS-hard surfaces are bonded, generally we recommend using a primer.

For corrosion protection and for sealing of e.g., miters and butt joints in the field of aluminum construction, a corrosion-protective sealant are applied on the blank aluminum cut surfaces before the connecting elements are bonded.

### Bonding

Reactivity and dosing behavior are considerably influenced by the material temperature; under warm conditions, masses become faster and can be dosed significantly faster. At low temperatures <+7 °C, homogeneously heat the cartridges up to max. +35 °C.

The static mixing tube is screwed onto the open cartridge and the cartridge is inserted in the dosing gun.

Avoid overloading of the tandem cartridge due to too high forces >3.6 kN.



Depending on the type or brand of the air pressure gun, and when applying higher operating pressure, the cartridges can be damaged or become leaky due to the different forces caused by the pneumatic cylinders of the guns at usual application temperatures.

The first approx. 20g of the mixed adhesive (approx. walnut size) are not used for bonding for safety reasons (cartridge filling method)!

Within the processing time, apply the mixed adhesive directly from the static mixer into the profile or onto the surface to be bonded and fit the parts together.

After they have been fit together, the parts must be fixed and pressed until functional strength has been reached. Remove oozing adhesive when it is fresh.

In case of short interruptions of work, within the processing time, if dosed once more, new, fresh adhesive is filled in the static mixer. In this way, one static mixer can be used for a whole work day.

After work stoppages, make sure to change the static mixer within the specified time.

After the end of work, the used static mixer remains on the cartridge unit; if work starts again, the static mixer is to be replaced. If necessary, remove hardened adhesive from the cartridge nozzle. Now the safety shot, approx. 20 g of adhesive, is required, before bonding can be continued!

### Bonding of metals

Bonding of aluminum, copper, brass: only on chemically pretreated or varnished surfaces; these materials cannot be durably bonded to be age-resistant without appropriate pre-treatment of the surfaces to be glued.

Due to the difficult definition of aluminum surfaces and qualities, we generally recommend gathering sufficient information from the supplier to prepare the planned bonding process optimally; sufficient qualification tests are required.

Due to their variety, age and, if necessary, additional treatment with oil or wax, anodized surfaces do not allow any general statement about wettability or bonding characteristics of these bonding surfaces.

If stainless steel is manufactured or processed, auxiliary aids, e.g., wax, oil, etc., are often used, that usually cannot be removed by simple wiping away; it turned out that after the cleaning with solvent-based cleaning agents a clearly better bonding result will be achieved after grinding, or better sand blasting, of the surface and following cleaning with solvent.

Galvanized sheet metals must generally be protected from stagnant humidity that is permanently acting on it "formation of white rust". In this case, it must be excluded that occurring humidity can get onto the bonding surface.

Powder coatings with shares of PTFE cannot be bonded reliably without pre-treatment (e. g. plasma procedure).

### Bonding of wood

If solid wood is bonded, the adhesive should preferably be applied on the two surfaces to be bonded. The press pressure shall be  $>1 \text{ N/mm}^2$ .

If solid wood is bonded for outdoor application, perform appropriate tests to achieve optimum bonding depending on wood type, weathering intensity, surface protection and dimensions of adhesive joints.

### Packaging

2 x 190 ml tandem PP-cartridge, net weight: 550 g

2 x 310 ml tandem PP-cartridge, net weight: 900 g

### Shelf-life and Storage

Store the hermetically closed original trading units, in a dry place at temperatures of  $+15 \text{ }^\circ\text{C}$  to  $+25 \text{ }^\circ\text{C}$  no direct sun radiation. While transported within the usual transport times, the product may be exposed to temperatures from  $-30 \text{ }^\circ\text{C}$  to  $+35 \text{ }^\circ\text{C}$ . Storage life in unopened original packaging: 12 Months.

### Limited Warranty

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Please, also consider the Safety Data Sheet!