

COSMO PU-200.180

*** COSMOPUR 890/805

2-C-PUR Reaction adhesive

Examples for Application

- Manufacture of sandwich and apron elements.
- Bonding of surfaces
- Structural, force-locking bonding of the most varying material combinations, e.g. in the field of vehicle body manufacture.
- It is especially used in specialist firms in the field of stair restoration as high-strength, tough-elastic bonding and levelling compound for laying of step elements.

Special Properties

- Tough-elastic adhesive joint
- Solvent-free
- Thixotropic, does not drop off
- Compatible with natural stone
- Good adhesion characteristics to several types of material surfaces, e.g. PVC-hard, GRP (ground), Alu, HPL etc. on diverse insulating materials, e.g. PUR-, PS-foam and mineral wool after appropriate preparation of the surfaces
- Good weather-proofness
- Can be over-coated with many paint systems

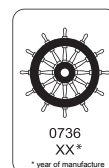
Certificates / Test reports

BG Verkehr, Dienststelle Schiffssicherheit (Ship Safety Division)

Approved for the international application on ships, in accordance with Module B.

Approval No.: 118.189

Applied quantity: max. 190 g/m²



The fire test as per IMO FTPC and approval of the system COSMO PU-200.180 were executed without pre-treatment of the surfaces to be glued and with COSMO primers, and without the addition of COSMO accelerators und COSMO paste paints.

Technical Data

Basis:	2-Component-PUR-reaction adhesive
Colour	
Hard-dry	Beige
Comp. A – COSMO PU-201.180	Beige-white
Comp. B – COSMO PU-265.120	Brown
Density	
as per EN 542 at +20 °C	
Mixture – COSMO PU-200.180	approx. 1.52 g/cm ³
Comp. A – COSMO PU-201.180	approx. 1.57 g/cm ³
Comp. B – COSMO PU-265.120	approx. 1.23 g/cm ³
Shore hardness	
as per DIN 53505	approx. 50 Shore D



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Viscosity

at +20 °C

Mixture – COSMO PU-200.180	Medium viscous-pasty
Comp. A – COSMO PU-201.180	Highly viscous-pasty
Comp. B – COSMO PU-265.120	Low-viscous fluid

Mixing ratio

Parts by weight	A : B = 100 : 15
Parts by volume	A : B = 100 : 19.5

Pot life

of a 100 g batch at +20 °C	approx. 115 min
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Processing time

depending on type of application at +20 °C	approx. 90 min
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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.

Functional strength

Depending on application at +20 °C	approx. 7 h
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Curing time

at +20 °C, 50 % r. H. to ~75 %	approx. 24 h
until it reaches the final strength	approx. 28 d

Minimum processing temperature

from +7 °C

Tensile shear strength

as per DIN EN 1465, Alu/Alu, 0.2 mm joint	
at +20 °C	13.0 N/mm ²
at +80 °C	5.0 N/mm ²

Applied quantity

Depending on application

Instructions for use

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.

Mixing manually: The individual components are mixed to be homogenous in the described mixing ration using a mixing container and a drilling machine. The mixed adhesive is applied within the processing time using a toothed spatula. The parts to be bonded are put together within the pot life of the adhesive and are fixed/pressed until its functional strength has been reached.

Mixing method - dosing unit: The individual components are mixed to be homogeneous in the described mixing ratio using the dosing unit. The mixed adhesive is applied on the surfaces to be bonded within the processing time. The parts to be bonded are put together within the pot life of the adhesive and are fixed/pressed until its functional strength has been reached.



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If covering layers are laid, make sure that no air is enclosed, provide for air vent in the adhesive joint, if necessary. Remove oozing adhesive when it is fresh.

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

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 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.

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

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

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

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.

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

The processing time, and with this the time to reach the functional strength of the adhesive system, can be reduced by adding the accelerator COSMO SP-900.110, as required.

The adhesive can be coloured by adding of paste paints COSMO SP-620, usually up to 1%, however not more than 3%.

The accelerator COSMO SP-900.110 and/or the paste paints COSMO SP-620 can be added into the binder component together with the hardeners COSMO PU-265 and with this, it can be mixed directly within the mixing process.

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 values.

Important instructions

Only instructed personnel in specialist firms are allowed to use the product!

Our user instructions, processing guidelines, product- and performance data, and other technical statements are only general directives; they describe only the condition of our products (values, determination of values on the date of completion) and the performances do not represent a warranty in the sense of § 443 BGB. **Because of the wide variety of applications of the individual product and the relevant special conditions (e. g. processing parameters, material characteristics, etc.), it is up to the user to test it itself;** our free expert advice for application provided in speech, writing, and as test is nonbinding.

Please, also consider the Safety Data Sheet!

Cleaning

Remove the fresh, not cured adhesive from the surfaces and the tools using COSMO CL-300.150.



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The tools are cleaned with COSMO CL-300.220 .
Cured adhesive can only be removed mechanically.

Storage

Store in the hermetically closed original packages, dry at temperatures of +15 °C to +25 °C, no direct sun radiation.
Storage life in unopened original packages 12 Months.

Packaging

Comp. A – COSMO PU-201.180:

5 l PE bucket, net weight: 3 kg

200 l Metal clamping ring drum with inliner, net weight: 300 kg

Comp. B – COSMO PU-265.120:

500 ml PE-bottle, net weight: 0.45 kg

10 l metal canister, net weight: 12 kg

200 l bung hole drum, net weight: 250 kg

Other trading units on request.

Accessories

COSMO CL-300.270 – Cleaner for machine



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