



## 2-C-STP-Adhesive

### Examples for Application

- Used for bonding and sealing in automotive and vehicle body manufacture
- Bonding of leaf-enclosing door panels
- For assembly bonding
- Skirting, laying of laminate and cable ducts
- Bonding of mirrors as per Technical regulations of the glazing trade No.11, current edition
- Stair construction and building trade
- Bonding of façades (cassette) - sandwich elements
- Glass bonding in furniture and display cabinet construction
- Solar systems and wind power plants
- Fixation of signs
- Apparatus and plant construction
- Corrosion protection of blank aluminium sections
- Sealing, e.g. of mitres, butt joints in aluminium construction
- Diverse industrial fields

### Special Properties

- low emission\*
- elastic adhesive joint
- Solvent-free
- Compatible with mirror rear sides as per DIN EN 1036
- Compatible with natural stone
- Not foaming
- Low shrinkage
- Good adhesion characteristics to different surfaces
- Surface can be smoothed well
- Fast and controlled full hardening
- High strength of adhesive joints
- Compensates the expansion of different materials
- Good weather resistance outdoors
- Good UV-stability
- Can subsequently be powder-coated

### Certificates / Test reports

#### ILAK, Institut für Lackprüfung

Salt spray test as per DIN EN ISO 9227

Test report No.: 9-5-18/3

#### GEV

\*Classified in the EMICODE class EC 2 in compliance with the criteria of the GEV.

Licence No.: 10687



French VOC-Emission class A+

### Technical Data

**Mixture** COSMO® HD-200.101 (Component A COSMO® HD-201.101 + Component B COSMO® HD-205.101)

<b>Basis</b>	2-Component STP reaction adhesives
<b>Colour</b> hard-dry	grey
<b>Density</b> as per EN 542 at +20 °C (+68 °F)	approx. 1.49 g/cm <sup>3</sup> (12.43 lb/gal)
<b>Shore hardness</b> as per DIN 53505	approx. 63 Shore A
<b>Viscosity</b> Mixture – COSMO® HD-200.101 as per plate-plate (2 s <sup>-1</sup> ) at +25 °C (+77 °F)	approx. 150 000 mPa.s (150 000 cP)
<b>Mixing ratio</b> parts by volume	A: B = 2.0 : 1.0
<b>Breaking elongation</b> as per DIN 53504	approx. 250 %
<b>Pot life</b> of a 100 g (3.5 oz) batch at +20 °C (+68 °F)	approx. 30 min





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<b>Processing time</b> with static mixer at +20 °C (+68 °F)	approx. 15 min
<b>Functional strength</b> depending on application at +20 °C (+68 °F)	approx. 3.5 h
<b>Curing time</b> at +20 °C (+68 °F), 50 % r. H. until it reaches the final strength	approx. 7 d
<b>Operation temperature range</b>	from -40 °C (-40 °F) to +100 °C (+212 °F)
<b>Subsequent powder</b> coating after reaching the final strength	20 min/to +200 °C (+392 °F)
<b>Processing temperatures</b> Adhesive and substrates	from +7°C (+45 °F) to +30 °C (+86 °F)
<b>Tensile shear strength</b> as per DIN EN 1465, alu/alu, 0.2 mm (7.9 mil) joint at +20 °C (+68 °F)	approx. 4.0 N/mm <sup>2</sup> (580 psi)
<b>Tensile shear strength</b> as per DIN EN 1465, alu/alu, 0.2 mm (7.9 mil) joint at +80 °C (+176 °F)	approx. 2.7 N/mm <sup>2</sup> (392 psi)

### Component A COSMO® HD-201.101

<b>Colour</b>	white
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### Component B COSMO® HD-205.101

<b>Colour</b>	grey
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## General Information

The processing times become shorter at +30 °C (+86 °F) to approximately half of the time, at +10 °C (+50 °F), they become longer to approx. double of the time.

Paint the bonded workpieces only after the adhesive has cured completely; if they are painted too early, formation of paint bubbles cannot be excluded.

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

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.

## Preparation

Acclimatise the product before the application.

The cartridges must be checked for damage before processing. If there is any visible damage, they should no longer be used.

Safety glasses must be worn during processing.

Avoid overloading of the 2 : 1 side.by.side cartridge by too high forces. Using the air pressure gun type COSMO® SP-750.150 and a connected pressure of 6.8 bar (99 psi), max. 5.2 kN (1169 lbf) can be reached, i.e. safety is ensured.

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.

Bonding of PVC, ABS, PC, PET, GRP on the basis of polyester or polyamide and powder-coated surfaces should only be done after pre-treatment of the bonding surfaces with the activator COSMO® CL-310.110 by wiping.





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Bonding of concrete, cellular concrete, sandstone and building brick should only be done after pre-treatment of the bonding surfaces with the activator COSMO® CL-310.110 by brush (up to 50 ml/m<sup>2</sup> (1.41 fl oz/yd<sup>2</sup>)).

### Bonding

#### 400 ml (13.53 fl oz) 2 : 1 side-by-side cartridge

Open the cartridge and insert it in the gun.

At first, dose only a small amount of adhesive out of the cartridge without static mixer until the two adhesive components leave it visibly, approx. 5 g (0.2 oz) to 8 g (0.3 oz). Absorb this quantity with a paper towel and discard it.

After that, screw on the static mixer.

#### 195 ml (6.59 fl oz) 2 : 1 uTAH cartridge

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

If the uTAH cartridge shall be used with an air pressure gun, it must be equipped with a piston rod.

The first approx. 20 g (0.71 oz) of the mixed adhesive (approx. walnut size) are not used for bonding for safety reasons (cartridge filling method)!

The adhesive mixture from the static mixer is directly applied onto the bonding surface and the parts are fit together within the processing time.

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.

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 (0.71 oz) of adhesive, is required, before bonding can be continued!

### Bonding of metals

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.

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 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.

If metals are bonded with absorbent materials (e.g. wood, building materials, etc.), humidity can be transported slowly through the absorbent material, through the bonded joint, to the metallic surface and here, it can cause corrosion damages on the metal. Therefore, the metallic bonding surface must be equipped with an appropriate corrosion protection, e. g. varnish, powder coating!

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

### Important instructions

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

If leaf-enclosing door panels shall be glued, please also consider our Technical Information "Attachment panels".

For bonding of mirrors strictly observe the Technical regulations of the glazing trade No.11, current edition. For this topic, please also read our Technical Information "Bonding of mirrors".

For PVC-bonding, also read our technical information "Testing and evaluation of PVC-bonding with STP/MS adhesives of the product series COSMO® HD".





## 2-C-STP-Adhesive

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.

Cured adhesive can only be removed mechanically.

### Storage

Store the hermetically closed original trading units in a dry place at temperatures of +15 °C (+59 °F) to +25 °C (+77 °F) no direct sun radiation.

Within the usual transport times, the product may be exposed to temperatures from -30 °C (-22 °F) to +35 °C (+95 °F).

Storage life of the uTAH cartridge in the unopened original packaging: 24 month.

Storage life of the side.by.side cartridge in the unopened original packaging: 24 month.

### Packaging

195 ml (6.59 fl oz) 2 : 1 uTAH cartridge, net weight: 290 g (10.2 oz)

400 ml (13.53 fl oz) 2 : 1 side.by.side cartridge, net weight: 590 g (1.3 lb)

Other trading units on request.

### Accessories

COSMO® SP-800.221 - Static mixer

COSMO® SP-800.120 - Static mixer

COSMO® SP-800.230 - Static mixer

COSMO® SP-750.150 - Air pressure gun

COSMO® SP-760.190 - Manual pressure gun

