

COSMO® Adhesives

Transportation & Marine



weiss

A strong partner

Weiss is representing top performance in the areas of adhesive and sandwich technology.

For many decades, Weiss has been very successful in setting new market standards in terms of quality and excellent services. With our comprehensive product line of adhesives and sandwich panels, we are covering a wide variety of different applications.



Quality management

Basis for the quality assurance of our products and procedures is a documented and certified management system as per DIN EN ISO 9001-2008. For the production processes, this means that all products and each single batch are continuously monitored in our laboratory during the production process and after the completion they are tested in compliance with specified criteria.



Development / Application engineering

It is very important to us to provide professional and innovative solutions with convincing advantages for production methods and of high efficiency in close cooperation with our customers. A highly motivated team of chemists and application engineers with long-term experience in development, modification and application of adhesives is on hand with help and advice for you.



Tests

With our own test facilities we are not only able to test in compliance with DIN and EN standards but we can also evaluate your components (component sizes) under operating conditions in a practice-oriented way. In addition, we ensure the high quality of our products on the basis our cooperation with the most diverse testing institutes.



Traditional bonding technologies like riveting, soldering, welding, or screwing are more and more replaced by modern adhesive systems whereby they are offering numerous advantages.

Thus, adhesives, for instance, do not change the specific characteristics of the respective joint parts as it happens for welding. Furthermore, no bores are required that can weaken the structure of the materials, for instance for screws or rivets.

In addition to it, bonded joints ensure a more homogeneous distribution of forces over the whole bonded surface which results in an essentially higher total strength. Weiss is offering to you highly loadable adhesive systems for the most diverse fields of mobile applications and tailored to the special requirements in this market segments. With the help of our adhesives, ensure the required high quality of your product and achieve strengths that guarantee the safe and durable bonding of your joint parts also under extreme loads.



Certified adhesive systems in the shipbuilding area *Approval BG Verkehr, Hamburg / Low flammability*

In the shipbuilding area, the provisions referring to the permitted products have been tightened in a way that for "all commercially used ships, yachts and boats" only tested and approved products are allowed to be used. The quality management system of Weiss complies with module D (quality assurance production) of the 2014/90/EU directive on marine equipment and the approved adhesive systems are subject to this quality assurance system.

These special requirements of shipbuilding are arguably met by the adhesives marked with the steering wheel.



Our service

- Expert advice on selection of adhesives
- Proposals for optimization and rationalization of your work flows
- Trainings on handling of adhesives as well as on processing equipment technology



Weiss Chemie + Technik GmbH & Co. KG has been certified by the BG Verkehr, Hamburg as per DIN EN ISO 9001 : 2008 .

Due to their wide range of application possibilities, our one- and two-component adhesive systems for constructive bonding are suitable for bonding of the most different materials. Even under extreme conditions, our adhesives provide for safe and durable bonding of your joint parts, no matter whether it is used in trade or in the industrial sector.



Elastic MS adhesives - *Compensate tensions*

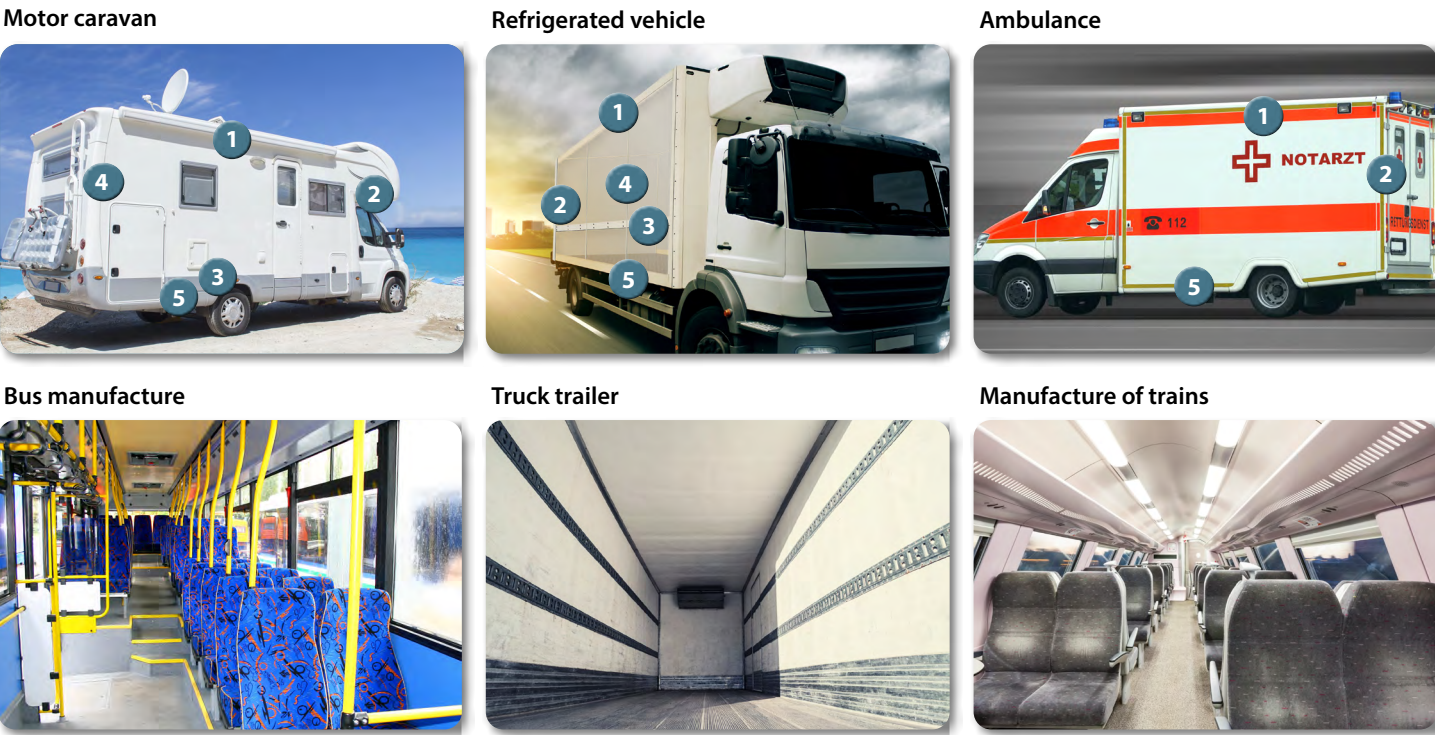
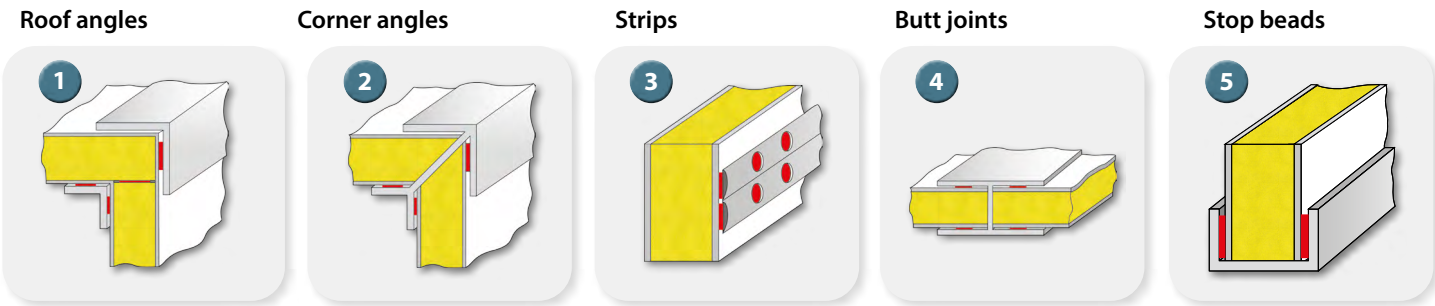
Product	The multi-talent COSMO® HD-100.400	The slow-acting one COSMO® HD-100.440	The fast acting one COSMO® HD-100.450	The clean one COSMO® HD-100.460	The controlled one COSMO® HD-200.101
Emphasis	All-rounder	Long open time	High-Tack / First-Tack	Bacteriostatic and fungistatic	2-K-MS with fast curing
Viscosity (+25°C)	~ 600,000 mPa*s	~ 500,000 mPa*s	~ 1,500,000 mPa*s	~ 500,000 mPa*s	~ 150,000 mPa*s
Skinning time	12 minutes	30 minutes	6 minutes	12 minutes	35 minutes
Curing	4 mm/24 h	4 mm/24 h	4 mm/24 h	2.3 mm/24 h	150 minutes (60 % of final hardness)
Hardness Shore A	55	48	60	50	60
Elongation at break/Breaking elongation	350 %	450 %	250 %	320 %	260 %
Absorption of water (stored for 14 days)	3.0 %	1.5 %	3.5 %	3.5 %	2.0 %
Salt mist test	Good			√	√
Tensile shear strength, +20°C	3.1 N/mm²	3.2 N/mm²	3.0 N/mm²	3.3 N/mm²	4.0 N/mm²
No marking required	√	√	√	√	
Solvent-free	√	√	√	√	√
EMICODE® EC1PLUS	√	√	√	√	
Can be coated over	Good	Good	Satisfying	√	√
Steering wheel / flame-resistant					
ISEGA / indirect food contact	√			√	√
ETAG 022 compatible	√	√	√	√	√
Indoor and outdoor application	√	√	√	√	√
Content / trading unit-cartridge	310 ml	310 ml	310 ml	310 ml	400 ml
Content / trading unit-tubular bag	600 ml	600 ml	600 ml	600 ml	
Standard colours	White/black/grey	White	White	White	Grey

High-strength PU adhesives - High strength of adhesive joint

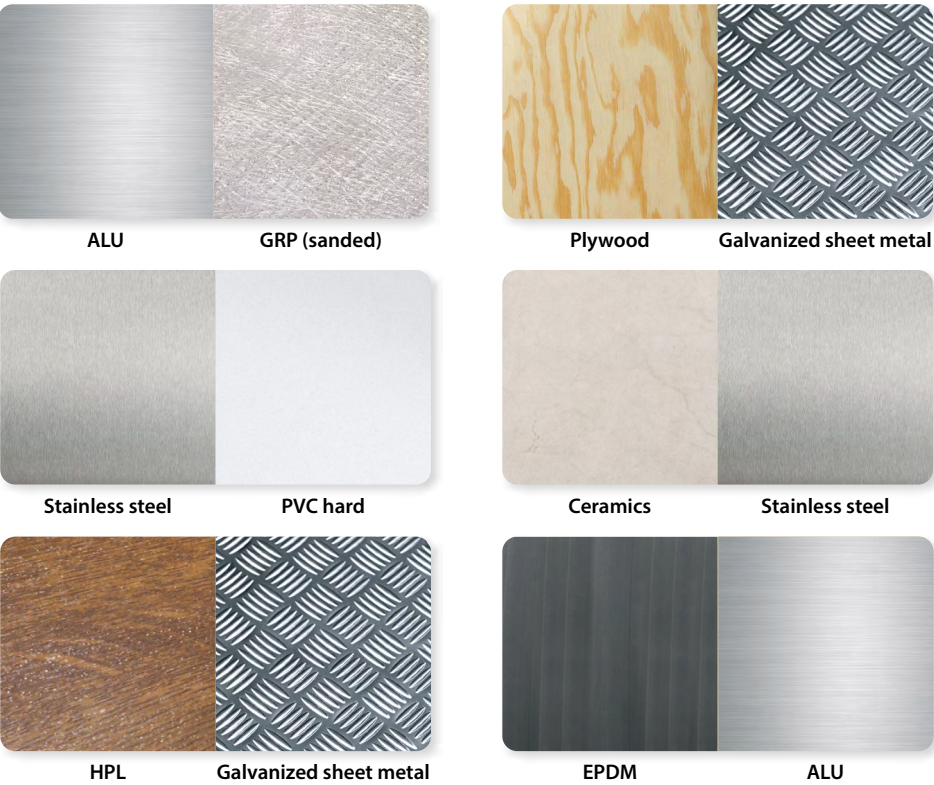
Product	The multi-talent COSMO® PU-200.180	The high-strength one COSMO® PU-200.330
Emphasis	All-rounder	Tough-hard adhesive joint
Non-slump / pasty	Yes	Yes
Viscosity (+25°C)	140,000 mPa*s	25,000 mPa*s
Skinning time / pot life	90 minutes	50 minutes
Functional strength	420 minutes	300 minutes
Hardness Shore D	55	60
Hardness Shore A		
Tensile shear strength, +20°C	12.5 N/mm²	19 N/mm²
Solvent-free	√	√
EMICODE® EC1PLUS		
Can be coated over	√	√
Steering wheel / flame-resistant	☼	
Content / trading unit-cartridge		2*310 ml
Mixing unit	3.45 kg	910 g
Standard colours	Beige	Beige

High strength MS adhesive

The one with no marking COSMO® HD-100.500
Tough-elastic adhesive joint
Conditional
70,000 mPa*s
5 minutes (wet)
30 minutes
72
5 N/mm²
√
√
√
310 ml
490 g
White



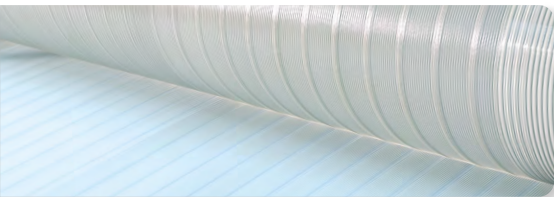
Examples of materials



For preparation, we recommend our **activator**
COSMO® CL-310.110

It cleans and activates bonding surfaces. It improves bonding on PVC, ABS, PC, GRP on the basis of polyester or polyamide and powder coated surfaces. Activation of non-absorbent, porous and smooth substrates.

When composite panels are manufactured, very special requirements are put on the used adhesive system because different technologies are applied for the application of adhesive and a large number of materials or material combinations. To support you with the suitable adhesive in your individual production processes, we have developed a wide variety of systems with the most different characteristics referring viscosity, thixotropy, processing and pressing times.



Examples of materials

Top coats

- ALU (aluminium)
- PVC (polyvinylchloride)
- HPL (high pressure laminated panels)
- GRP (glass fibre reinforced plastics)
- CFK (carbon fibre reinforced plastics)
- EPO (epoxy resin)
- HD (decorative films)
- SPE (plywood)
- DSP (thin chipboard)

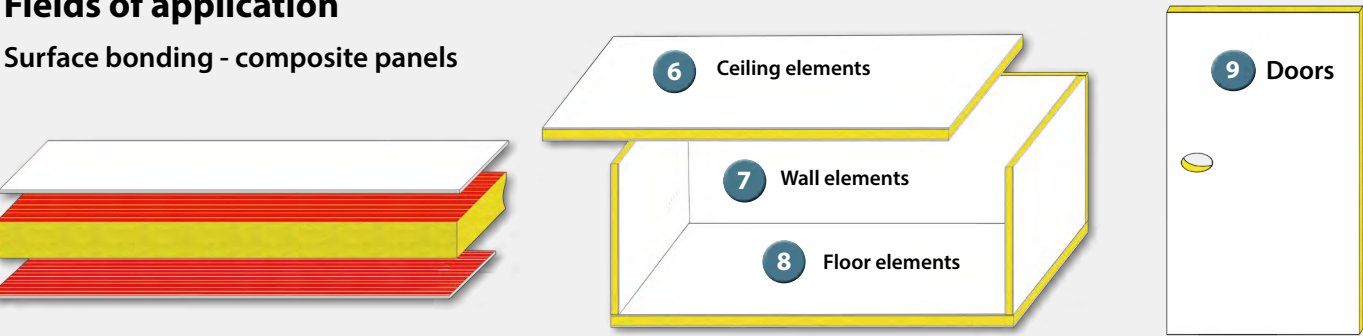
Core materials

- XPS (extruded polystyrene rigid foam)
- PUR (polyurethane rigid foam)
- MIN (mineral fibre insulating material)
- PR (polyurethane recycling panel)
- EPS (expanded polystyrene rigid foam)
- PUR/AL (polyurethane rigid foam/aluminium)

	COSMO® PU-160.160	COSMO® PU-160.130	COSMO® PU-160.530	COSMO® PU-160.540	COSMO® PU-125.110	COSMO® PU-220.230	COSMO® PU-220.150
Emphasis	All-rounder 1-C-PUR	The slow-acting one	Specialist for nearly each surface	Fast cycle times	Minimum calorific value	Marine 2-C-PUR flame-retardant	All-rounder 2-C-PUR
Viscosity (+25°C)	~ 3,500 mPa*s	~ 3,500 mPa*s	~ 6,500 mPa*s	~ 4,000 mPa*s	~ 8,500 mPa*s	~ 2,500 mPa*s (mixture)	~ 3,000 mPa*s
Skinning time/pot life	60 minutes	120 minutes (dry)	110 minutes	9 minutes	11 minutes	260 minutes	100 minutes
Calorific value	~ 30 MJ/kg	~ 30 MJ/kg	~ 30 MJ/kg	~ 30 MJ/kg	~ 15 MJ/kg	~ 23 MJ/kg	~ 25 MJ/kg
Pressing time	120 min	240 min	240 min	30 min	45 min	420 min	300 min
Tensile shear strength, +20°C	~ 7.5 N/mm²	~ 7.5 N/mm²	~ 6.0 N/mm²	~ 8 N/mm²	~ 12 N/mm²	~ 15 N/mm²	~ 16 N/mm²
Solvent-free	✓	✓	✓	✓	✓	✓	✓
Can be coated over	✓	✓	✓	✓	✓	✓	✓
Steering wheel / flame-resistant	✗	✗	✓	✓	✗	✗	✓
Foaming	✓	✓	✓	✓	✓	✓	✓
Not foaming							
Density	1.12 g/cm3	1.12 g/cm3	1.12 g/cm3	1.12 g/cm3	1.47 g/cm3	1.37 g/cm3	1.48 g/cm3

Fields of application

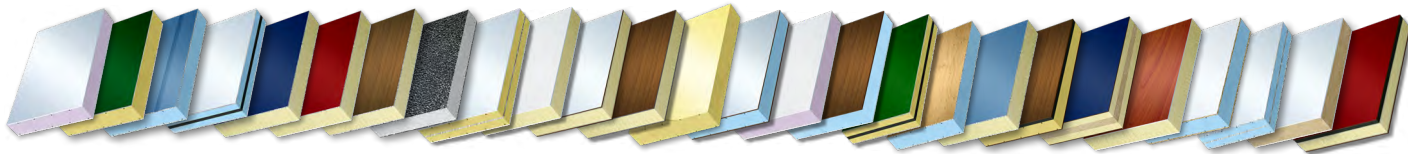
Surface bonding - composite panels



COSMO® Composite panels

In addition to adhesives, we are producing our own composite panels, consisting of high grade material components that are fit together with our approved adhesive system. Premium elements come out that fully convince with their quality, robustness and durability.

- COSMO® Therm (heat-insulating)
- COSMO® Silent (sound insulating)
- COSMO® Protect (penetration resistant)
- COSMO® Design (grooved)
- COSMO® Tech (individual)
- COSMO® Frame (frame widening)



Refrigerated vehicle



Truck trailer



Motor caravan



Ambulance



Ship cabin building



Delivery van



Activator

COSMO® CL-310.110

It cleans and activates bonding surfaces. It improves bonding on PVC, ABS, PC, GRP on the basis of polyester or polyamide and powder coated surfaces.



Primer / first coat

COSMO® SP-830.110

For adhesion promotion and improvement on various absorbent mineral substrates (primer).



Manual pressure guns

COSMO® SP-760

Manual pressure guns for dosing from Euro / tandem chamber cartridges and tubular bags.



Designs

COSMO® SP-760.110 for 310 ml Euro cartridges

COSMO® SP-760.120 for 600 ml tubular bags

COSMO® SP-760.141 for 2 x 190 ml tandem cartridges

COSMO® SP-760.151 for 2 x 310 ml tandem cartridges

Pressure guns

COSMO® SP-750

Pressure guns for dosing of Euro / tandem chamber cartridges and tubular bags.



Designs

COSMO® SP-750.111 for 2 x 190 ml tandem cartridges

COSMO® SP-750.121 for 2 x 310 ml tandem cartridges

COSMO® SP-750.130 for 310 ml Euro cartridges

COSMO® SP-750.140 for 600 ml tubular bags

Surface nozzle for Adhesives and sealants

COSMO® SP-810

For easy processing of thixotropic and flowable adhesives. Due to the individual cut of the five openings, the application width of adhesive can be adjusted easily between 20 and 75 mm. For cartridges and bottles.



Static mixing tubes

COSMO® SP-800

Static mixing tubes for homogeneous mixing of 2-C-adhesives for the use of tandem cartridges.

Special Properties

- Homogeneous mixing achieves constant adhesive quality
- Easy and safe handling of tandem cartridges with static mixers



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