

# TECHNICAL DATA SHEET

## Bond and Seal structural adhesive

**Art. no. 0890 100 1**

P. Qty.: 1 / 12 / 24

### Elastic PU adhesive and sealant for a wide range of applications

Outstanding adhesive strength on a wide range of materials and surfaces such as aluminium, stainless steel, steel, copper, brass, zinc, painted surfaces, wood, MDF, HPL, decorative boards and chipboard, cement fibreboards, cork, stone, artificial stone, gypsum, plasterboard, aerated concrete, concrete, clay brick, calcium silicate block, glass, porcelain, ceramic, hard foams and plastics (GFRP/CFRP, ABS, polyamide, polycarbonate, polyester, PMMA and hard PVC). Please refer to the optimisation table.

Not suitable for PE, PP, PTFE, silicone, rubber, neoprene, expandable polystyrene, marble, bituminous substrates and softened plastics.



Contents	300 ml
Container	Cartridge
Chemical basis	Single component polyurethane
Colour	White
Max. skin-formation time	60 min
Min./max. skin-formation time	45-60 min
Smell/fragrance	Characteristic
Density/conditions	1.25 g/cm <sup>3</sup> /prior to hardening, DIN 53479
Min. skin-formation time	45 min
Shore hardness A/conditions	40/in accordance with DIN 53505
Full curing speed/conditions	3 mm/d/23 °C and 50% relative humidity, moisture curing
Min./max. processing temperature	5 to 35 °C
Min./max. temperature resistance	-40 to +90 °C
Short term temperature resistance max./conditions	120 °C/after 8 hours
Min. tensile strength	1.8 N/mm <sup>2</sup>
Min. combined tension and shear resistance	1 N/mm <sup>2</sup>
Conditions for tensile strength	in accordance with DIN 53504
Min. longitudinal resistance to tearing	6 N/mm

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Conditions for resistance to tearing	in accordance with DIN 53515
Elongation at break/conditions	500 %/in accordance with DIN 53504
Max. change in volume	-5 %
Glass transition temperature/conditions	-45 °C/in accordance with DIN 53445
Short-term resistance against	Fuels, Mineral oils, Animal fat, Animal oils, Vegetable fat, Vegetable oils
Shelf life from production/conditions	12 Month/at 10°C to 25°C
Silicone-free	Yes

## Application area

- For a range of bonding and sealing tasks
- Suitable for bonding and sealing in food processing plants
- For the permanently elastic sealing of spot weld seams

<b>Bond and Seal products</b>		<b>B+S</b>	<b>B+S Power</b>	<b>B+S Fast</b>	<b>B+S Combi</b>
			0890 100 1 - 6 0890 100 111 - 3 0890 100 181 - 3 0890 100 11 + 13	0893 235 1 0893 235 2 0893 235 3	0890 100 710 0890 100 720 0890 100 730
<b>Metal</b>	Aluminium	√ <sup>1</sup>	√ <sup>4</sup>	√ <sup>1</sup>	√ <sup>1</sup>
	Lead	x	x	x	x
	Stainless steel	√ <sup>1</sup>	√ <sup>4</sup>	√ <sup>1</sup>	√ <sup>1</sup>
	Copper	√ <sup>1</sup>	√ <sup>1</sup>	√ <sup>1</sup>	√ <sup>1</sup>
	Brass	√ <sup>1</sup>	√ <sup>1</sup>	√ <sup>1</sup>	√ <sup>1</sup>
	Steel/iron	√ <sup>1</sup>	√ <sup>4</sup>	√ <sup>1</sup>	√ <sup>1</sup>
Zinc	√ <sup>1</sup>	√ <sup>4</sup>	√ <sup>1</sup>	√ <sup>1</sup>	

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<b>Plastics</b>	ABS	√ 2	√ 2	√ 2	x
	GFRP	√ 2	√ 2	√ 2	√
	Rubber/neoprene	x	x	x	√
	Hard foams	√ 2	√ 2	√ 2	√
	PE	x	x	x	x
	PMMA	√ 5	√ 5	√ 5	-
	Polyamide	√ 5	√ 5	√ 5	√
	Polycarbonate = PC	√ 5	√ 5	√ 5	-
	Expandable polystyrene (not foam!)	√ 2	√ 2	√ 2	-
	PP	-	-	-	-
	PTFE	-	-	-	-
	Polyurethane = PU	√ 2	√ 2	√ 2	√
	Hard PVC	√ 2	√ 4	√ 2	√
	Silicone	-	-	-	-
Expandable polystyrene	-	-	-	-	

**Surface must be pre-treated, please refer to the technical data sheets according to the application.**

1. Prime with Primer for Metal 0890 100 61
2. Prime with Primer for P/W/S 0890 100 62
3. Pre-treat with deep-penetrating primer 0890 545 10
4. Pre-treat with Activating Cleaner 0890 100 60
5. Varioprimer safe + easy, 0890 024 021/0890 024 101

<b>Bond and Seal products</b>		<b>B+S</b> 0890 100 1 - 6 0890 100 111 - 3 0890 100 181 - 3 0890 100 11 + 13	<b>B+S Power</b> 0893 235 1 0893 235 2 0893 235 3	<b>B+S Fast</b> 0890 100 710 0890 100 720 0890 100 730	<b>B+S Combi</b> 0893 236 110 0893 236 120 0893 236 130
<b>Painted surfaces</b>	2-component paints, stove enamels, cathodic dip coating, painted panels	√ 4	√ 4	√ 4	√ 4
<b>Wood and engineered woods</b>	Wood (including MDF, chipboard)	√ 2	√ 2	√ 2	√ 2
	Laminated panels (Resopal, Ultrapas)	√ 4	√ 4	√ 4	
	HPL	√ 4	√ 4	√ 4	√ 4
	Decorative panels	√	√	√	√
	Cork	√ 2	√ 2	√ 2	√

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<b>Stone and construction materials</b>	Concrete	√ 2	√ 2	√ 2	√ 2
	Bituminous substrates	-	-	-	-
	Aerated concrete, gypsum, plaster-board	√ 3	√ 3	√ 3	√ 3
	Artificial stone (Corian, Varicor)	√ 2	√ 2	√ 2	√
	Delicate natural stone (e.g. marble)	-	-	-	-
	Natural stone, brick	√ 2	√ 2	√ 2	√ 2
	Cement fibreboards	√ 3	√ 3	√ 3	√
<b>Others</b>	Enamel	√ 5	√ 4	√ 5	√ 4
	Glass	√ 5	√ 4	√ 5	√ 4
	Fibreglass	-	-	-	-
	Mirrors	-	-	-	-
	Porcelain, ceramic, tiles	√ 5	√ 4	√ 5	√ 5
	Paper	√	√	√	√
	Cardboard	√	√	√	√
	Fabric	-	-	-	-
Leather	-	-	-	-	

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<b>Optimierungstabelle</b>		
<b>Oberfläche/Material</b>	<b>Optimierungsschritte *</b>	<b>Hinweise</b>
Aluminium eloxiert	1. HaftClean 2. HaftPlus Metall	-
Aluminium (AlMg3, AlMgSi1)	1. Grundreinigung mit IPA-Reiniger 2. Mit Schleifvlies „very fine“ leicht anschleifen 3. Nachreinigung mit IPA-Reiniger 4. HaftClean 5. HaftPlus Metall	-
Buntmetalle (Messing, Kupfer, Bronze, etc.)		Die Verwendung von HaftPlus Metall ist zwingend erforderlich!
Edelstahl (rostfrei)		-
Stahl (St 37, etc.)		Bei korrosionsgefährdeten Bauteilen: 2K-PU- oder Epoxi-Korrosionsschutz erforderlich!
Stahl verzinkt (feuer- oder galvanisch verzinkt)		-
Zink	-	-
Pulverbeschichtungen (PES, EP/PES)	HaftClean	Bei Anwendungen mit hohen Kräften oder feuchter Umgebung werden Vorversuche empfohlen.
2K-Decklacke, wasser- oder lösungsmittelbasierend (PUR, Acryl)	Varioprimer safe + easy	Aufgrund der Vielzahl an Lacken sind diese Angaben nur Anhaltspunkte, ggf. Vorversuche durchführen.
* Entsprechende Reihenfolge der einzelnen Schritte einhalten		

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<b>Oberfläche/Material</b>	<b>Optimierungsschritte *</b>	<b>Hinweise</b>
2K-Grundierungen, wasser- oder lösungsmittelbasiierend (PUR, Acryl, Epoxidharz)	Varioprimer safe + easy	-
Kathodische Tauchlackierung (E-Coating)	HaftClean	-
Coil-Coat-Beschichtung	HaftClean	-
ABS	1. HaftClean 2. HaftPlus K/H/S	Bei gering belasteten Teilen kann das Anschleifen entfallen.
GFK (ungesättigte Polyester), Gelcoat-Seite oder SMC	1. Grundreinigung mit IPA-Reiniger 2. Mit Schleifvlies „very fine“ oder Körnung 60-80 anschleifen und absaugen 3. Nachreinigung mit IPA-Reiniger 4. HaftClean 5. HaftPlus K/H/S	Haftfläche muss vor UV-Strahlung geschützt sein (lichtundurchlässige Abdeckung).
Hart-PVC	1. HaftClean 2. HaftPlus K/H/S	-
PMMA/PC (ohne kratzfeste Beschichtung)	Varioprimer safe + easy	Haftfläche muss vor UV-Strahlung geschützt sein (lichtundurchlässige Abdeckung).
Polyamid	Varioprimer safe + easy	-
Holz, Sperrholz, MDF, Holzprodukte und Kork	1. Entstauben 2. HaftPlus K/H/S	-
HPL Schichtstoffplatten (Resopal, Ultrapas)	HaftClean	-
Glas	Varioprimer safe + easy	Haftfläche muss vor UV-Strahlung geschützt sein (lichtundurchlässige Abdeckung).
Emaille, Porzellan, Keramik, Fliesen	1. HaftClean oder IPA-Reiniger 2. Varioprimer safe + easy	-
Beton, mineralische Mörtel, Putze und Zementfaserplatten	1. Entstauben 2. Tiefgrund	-
Kunststein (Corian, Varicor)	1. HaftClean 2. HaftPlus K/H/S	-

\* Entsprechende Reihenfolge der einzelnen Schritte einhalten

## Application information

The surfaces must be clean, dry and free from grease. The optimum temperature for the substance and material is between 15 °C and 25 °C.

Depending on the material and specification in the optimisation table, pre-treat with Activating Cleaner (art. no. 0890 100 60) or IPA Cleaner (art. no. 0893 223 500, 0893 223 505), as well as Primer for Metal (art. no. 0890 100 61), Primer for Plastic/Wood/Stone (art. no. 0890 100 62), deep-penetrating primer (art. no. 0890 545 10) or Varioprimer safe + easy (art. no. 0890 024 021/0890 024 101).

For more information on preparing material surfaces, refer to the optimisation table below. Carry out preliminary tests where necessary!

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Cut the nozzle tip to create the required bead geometry. The adhesive must be applied using a suitable manual, cordless or piston-rod-style compressed-air application gun to ensure a reliable finish. Apply the adhesive in the form of a triangular bead to ensure an even layer thickness. We recommend a minimum adhesive layer thickness of 3 mm to harness the benefits of thick-coat bonding. Once opened, ensure that all containers are used up within a short period of time.

Non-cured material can be removed using adhesive remover (art. no. 0890 100 63).

Once hardened, it can be mechanically machined and painted over without surface activation.

## Proof of performance

### ISEGA:

Can be used where food is processed or stored, e.g. for bonding wall and floor areas in food processing companies.

Clearance certificate no.: 46567 U 18



## Notice

- Not suitable for glass groove sealing or adhesive bonding on other transparent materials with risk of UV back reflection.
- Direct exposure to sunlight may result in slight surface yellowing and the development of cracks.
- Not suitable for expansion joints in construction applications.
- PVC-based paints and paints that dry by oxidation (oil and alkyd resin-based paints) are not suitable for painting over the adhesive.
- The use of Würth sealant smoothing agent may cause yellowing.
- Caution: Contact with solvents or solvent residues should be avoided, in particular during processing and the curing phase. This can lead to permanent damage of the Bond + Seal.
- Caution: In the case of high surface moisture, very wide adhesive bead application, and/or cavities/air pockets created, back-fill foams in the application, there is a risk of blister formation in the adhesive compound.

The usage instructions are recommendations based on the tests we have conducted and on our experience; carry out your own tests before each application. Due to the large number of applications and storage and processing conditions, we do not assume any liability for a specific application result. Insofar as our free customer service provides technical information or acts as an advisory service, no responsibility is assumed by this service except where the advice or information given falls within the scope of our specified, contractually agreed service or the advisor was acting deliberately. We ensure the consistent quality of our products. We reserve the right to make technical changes and further develop products. Please refer to the technical data sheet.