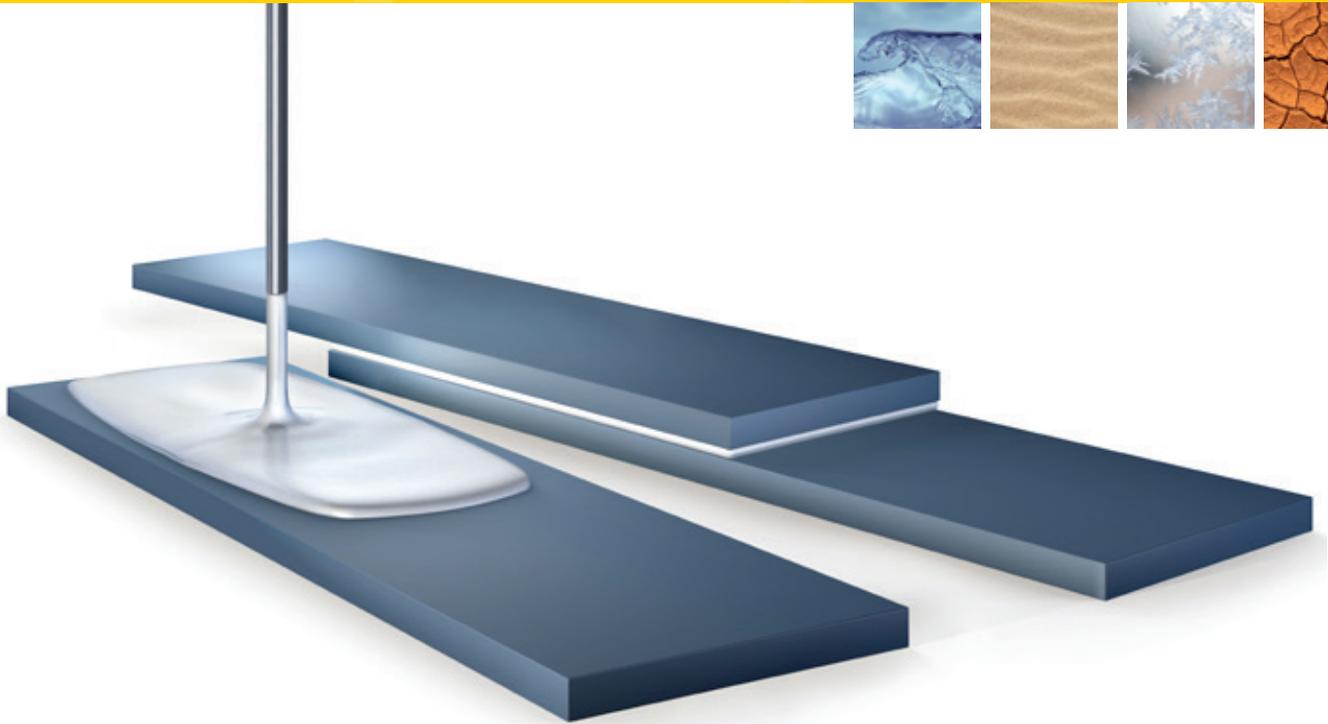


MORE THAN
50
YEARS OF
EXPERIENCE
IN SEALING
SOLUTIONS

chemicals



FERMAGLUE®

Two-component polyurethane adhesives



AUTOMATED SEALING SOLUTIONS

FERMAGLUE® – the right adhesive for a variety of applications.

The two-component polyurethane adhesive systems FERMAGLUE® from Sonderhoff Chemicals are used for gluing components from various user industries. The components to be joined can consist of different substrates, either thermoplastics or thermoset (also fiber-reinforced) plastics, plastics with metallic components, metal or glass, glass-plastic or glass-metal combinations.

The FERMAGLUE® adhesive systems are available in different degrees of hardness, which can be modified according to customer requirements. Various adhesives can be applied with different viscosities from liquid to stable.

The adhesive application is carried out with the mixing and dosing systems developed by Sonderhoff for this purpose.

FERMAGLUE® – diversity through individual formulations

Sonderhoff formulates FERMAGLUE® adhesives for the most diverse component requirements and industries. The component spectrum ranges from switch cabinet construction, electronics, lighting, automotive, utility vehicles, air conditioning, filters, photovoltaic to household appliances, to name but a few. The customer specific properties are implemented in tailor-made adhesive formulations.



Gluing of sunroofs



Gluing of spoilers



Gluing of entry sills



Gluing of glass panels and metal profiles for utility vehicles



Gluing of glass panels and plastic parts for utility vehicles



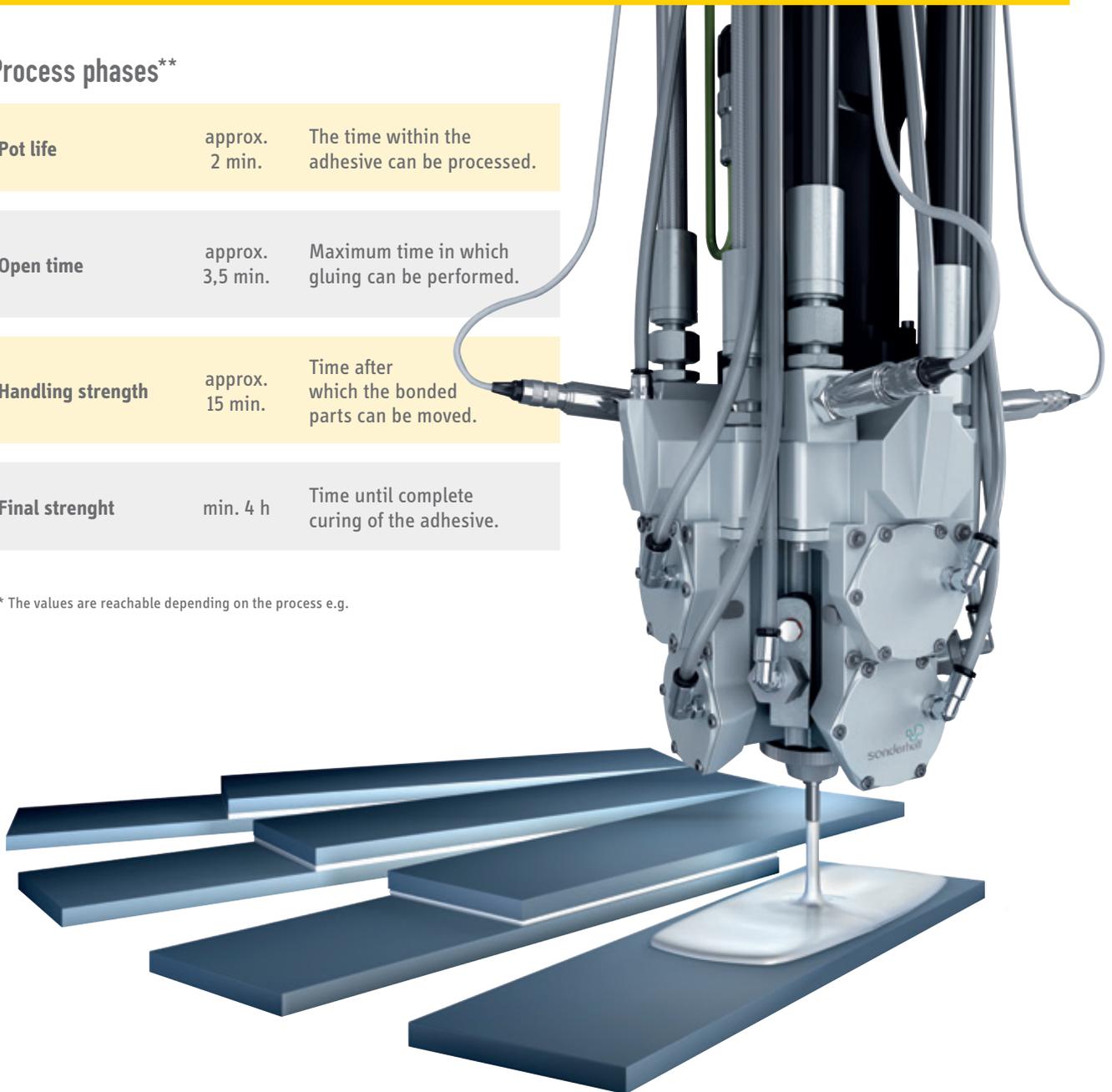
Gluing of solar panels

FERMAGLUE® – THE APPLICATION PROCESS

Process phases**

Pot life	approx. 2 min.	The time within the adhesive can be processed.
Open time	approx. 3,5 min.	Maximum time in which gluing can be performed.
Handling strength	approx. 15 min.	Time after which the bonded parts can be moved.
Final strength	min. 4 h	Time until complete curing of the adhesive.

** The values are reachable depending on the process e.g.



The adherence to a precisely defined mixing ratio of the two FERMAGLUE® adhesive components is the prerequisite for a perfect adhesive result.

The chemical reaction of components A and B already starts with the dynamic mixing. The FERMAGLUE® adhesive is applied over the mixing head nozzle very precisely to the contour of the component. During the still open processing time, the components are assembled.

The FERMAGLUE® adhesive systems cure under room temperature and create a firm and durable adhesive bond between the assembled parts. The curing rate is variable over the formulation in wide ranges. The through-hardening can be accelerated by gentle heating in the tempering furnace or by infrared irradiation.

The material processing and dosing of the FERMAGLUE® adhesives takes place with the high process accuracy of the mixing and dosing machines from Sonderhoff. The semi or fully automatic process can be well integrated into existing production concepts.

FERMAGLUE®

Two-component polyurethane adhesives for gluing different substrates

PROCESS INFORMATION

FERMAGLUE® adhesive systems are processed with mixing and dosing systems from Sonderhoff. The recommended processing temperature is + 18 °C to + 26 °C. The FERMAGLUE® adhesives can be stored for at least 6 months at storage temperatures from + 10 °C to + 35 °C.

PHYSICAL AND CHEMICAL PROPERTIES*

Property	FERMAGLUE®
Colour	grey to black
Viscosity	liquid to stable
Density (after curing)	approx. 1.40 - 1.55 g/cm ³
Hardness	from 30 to 80 Shore D
Tensile strength	from approx. 2 to 20 MPa
Elongation	from approx. 40 % to 200 %
Further properties	good resistance against many chemicals and solvents
Adhesion on	thermoplastics or thermoset (also fiber-reinforced) plastics, plastics with metallic components, metal or glass, glass-plastic or glass-metal combinations

THE FERMAGLUE® RANGE*

FERMAGLUE® type designation	viscosity (A) (mPa*s)	tensile strength (MPa)	elongation (%)	hardness in Shore D	further properties*
A-30D 10-1-DG-CT	10,000	5,7	200	30	low hardness, very elastic, high elongation, very good adhesion on many substrates
A-50D 10-1-DG-CT	10,000	11,7	163	50	medium hardness, high elongation despite high strength, very good adhesion on many substrates
A-60D 15-1-DG-CT	4,000	10,4	129	60	medium hardness, relatively high strength gluing with sufficiently high elongation, very good adhesion, static mixing
A-65D 10-1-G-CT	11,000	10,3	89	65	medium hardness, high elongation despite high strength, particularly good adhesion to SMC plastic
A-80D 10-1-G	14,000	17	46	80	high strength gluing, very good adhesion on many substrates

* This information is based on our current technical knowledge and experience. Due to the abundance of possible influences in the processing and application of the products, they do not release the processor from their own tests and trials. A legally binding assurance of certain characteristics or suitability for a particular application can not be derived from our data.

FERMAGLUE®

2C PU adhesives for the automatic gluing

Good reasons for using FERMAGLUE® *

1. FERMAGLUE® adhesive systems are used for safe gluing of different component substrates.
2. FERMAGLUE® adhesive systems are applied to the components automatically with the mixing and dosing systems from Sonderhoff or via static mixing.
3. FERMAGLUE® adhesive systems meet the most common adhesive requirements in many industries.
4. FERMAGLUE® adhesive systems have very good resistance to many chemicals.
5. FERMAGLUE® adhesive systems have very good adhesion to thermoplastics or thermosetting plastics (also fiber-reinforced), plastic-metal compounds, metal or glass.
6. FERMAGLUE® adhesive systems are adjustable to different degrees of hardness.
7. FERMAGLUE® adhesive systems (soft to medium hard) are distinguished by their high elasticity and a wide expansion spectrum. They thereby avoid cracks in the bond, which can arise due to different thermal expansion of different component substrates.
8. FERMAGLUE® adhesive systems (medium hard to hard) have a high tensile and shear strength and are used for structural gluing.
9. FERMAGLUE® adhesive systems have high tensile strengths up to 20 MPa.
10. FERMAGLUE® adhesive systems can be used with different viscosities ranging from liquid to stable for glue beads of different sizes.



Gluing of sight glass in switch cabinet doors



Gluing of in- and outdoor lamp housings



Gluing of household appliances



We supply worldwide to more than 50 countries and our customers produce annually more than 300.000.000 seals with our products.

* The description of the possible fields of use of our products as well as the technical data and values only have a general character and do not mean that a certain product can be used under all conditions in the respective field of use. In this respect, the stated field of use is not a binding specification or usage provision.

Due to the great number of environment variables and their influences (e.g. temperature, test specimens, size, interaction with substrates, influence of machines, or the like) you as our customer must check whether the product is suitable for your specific field of use. We will be pleased to assist and advise you in this respect.

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