

Portfolio Information

Adhesive Portfolio for the Wood Industry

- Solid Wood Panels
- Lightweight Panels
- Wood Windows
- Wood Products for Exteriors
- Load-Bearing Glulam

Our Word is Our Bond

Jowat Klebstoffe

Powerful Adhesives for the Wood Industry

Most sectors of the wood industry are united by high standards of attractive and modern design and product durability. Wood embodies quality and naturalness like no other material. At the same time, it is extremely versatile and can be used as a load-bearing element in construction as well as for furniture, tables, chairs or as a component in lightweight elements.

Due to the wide spectrum of requirements the different end products have to meet, the choosing of a suitable adhesive is crucial to ensuring smooth manufacturing processes and a high product quality.

The central aspect in all cases is an environment-friendly and healthy living environment and therefore the significant reduction of harmful emissions - including from the adhesive.

Jowat offers extensive advisory know-how and competent adhesive solutions for applications in the wood industry and is a trusted partner across all process steps related to bonding.



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Manufacture of Solid Wood Panels

Whether consisting of one or several layers - solid wood panels for the furniture industry or the construction industry, for example blockboards or three-layered panels, must be of lasting quality. The adhesive and its characteristics play a major role in meeting that requirement, during production as well as during the use of the product.

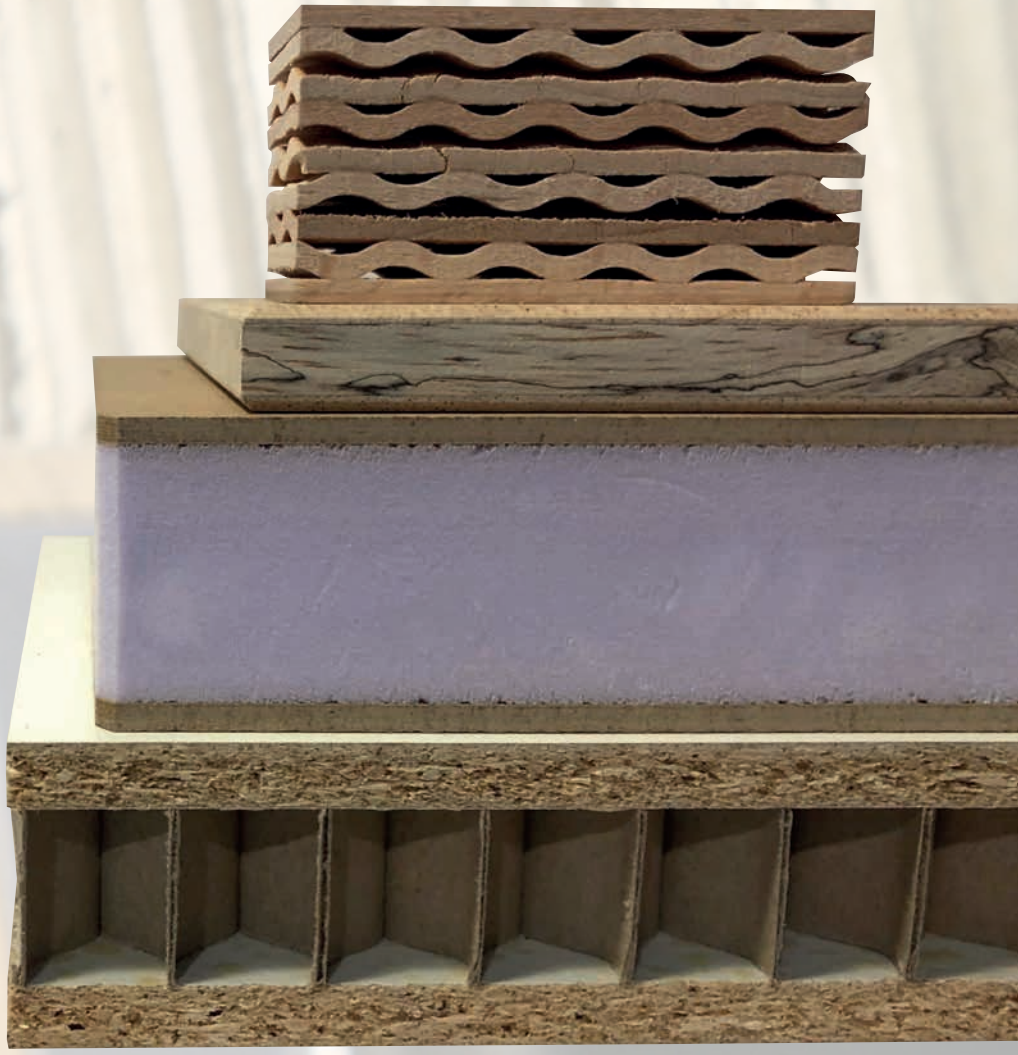


Dispersion Adhesives for Solid Wood Panels and Fingerjointing

	Based on	Type	Open time [min]	Durability class	Remarks
Jowacoll® 102.25	PVAc	2 components	7 - 10 at 20 °C	D4 WATT91 > 7 N/mm²	low viscosity, especially for fingerjointing
Jowacoll® 102.26	PVAc	2 components	7 - 10 at 20 °C	D4 WATT91 > 7 N/mm²	“all-rounder,” also for HF pressing
Jowacoll® 102.27	PVAc	2 components	8 - 10 at 20 °C	D4 WATT91 > 7 N/mm²	high viscosity for highly absorbent substrates
Jowacoll® 102.40	EPI	2 components	4–6 at 20°C	D4 WATT91 > 7 N/mm²	Low viscosity EPI for wood species that are difficult to bond
Jowacoll® 102.50	EPI	2 components	8 - 12 at 20 °C	D4 WATT91 > 7 N/mm²	for wood types difficult to bond
Jowacoll® 103.10	PVAc	1 component	4 - 8 at 20 °C	D3/ D4 (2K)	“all-rounder”
Jowacoll® 103.11	PVAc	1 component	5 - 11 at 20 °C	D3	low viscosity, also for wood species sensitive to discoloring
Jowacoll® 103.30	PVAc	1 component	6 - 12 at 20 °C	D3/D4 (2K) WATT91 > 7 N/mm²	premium D3 for short pressing time
Jowacoll® 103.70	PVAc	1 component	5 - 7 at 20 °C	D3	pH-neutral for wood species sensitive to discoloring
Jowacoll® 103.85	PVAc	1 component	5 - 8 at 20 °C	D3	D3, optimized for HF pressing
Jowacoll® GROW 105.85	PVAc	1 component	4 - 8 at 20 °C	D3 WATT91 > 7 N/mm²	„All-rounder“ based on renewable raw materials (>20%)
Jowacoll® 107.20	PVAc	1 component	9 - 11 at 20 °C	D4 WATT91 > 7 N/mm²	ready for processing without addition of hardener
Jowacoll® 110.40	PVAc	1 component	5 - 6 at 20 °C	D3	low viscosity, especially for fingerjointing

Manufacture of Lightweight Panels

“Lightweight (furniture) panels” can describe a virtually endless variety of material combinations, which all serve the same purpose: weight reduction without detrimental impact on functionality and performance characteristics. Jowat supplies powerful dispersion and hot melt adhesives for the manufacture of lightweight panels such as hollow core boards, honeycomb panels, sandwich panels and composite panels.



Dispersion Adhesives for Lightweight Panels

	Based on	Type	Open time [min]	Durability class	Remarks
Jowacoll® 103.10	PVAc	1 component	4 - 8 at 20 °C	D3/ D4 (2K)	“all-rounder”
Jowacoll® GROW 105.85	PVAc	1 component	4 - 8 at 20 °C	D3 WATT91 > 7 N/mm²	„All-rounder“ based on renewable raw materials (>20%)
Jowacoll® 124.00	PVAc	1 component	5 - 7 at 20 °C	D2	surface glue, high solids content reduces the swelling of the carrier board

PUR Hot Melt Adhesives for Lightweight Panels

	Based on	Viscosity [mPas]	Processing temperature [°C]	Open time [s]	Remarks
Jowatherm® PUR 609.00	PUR	~ 15,000 at 120 °C	110 - 130	~ 240 at 120 °C	pressure-sensitive, allows for correction of the substrate position
Jowatherm® PUR 609.30	PUR	~ 15,000 at 120 °C	110 - 130	~ 180 at 120 °C	“all-rounder”
Jowatherm® PUR MR 609.90	PUR MR	~ 30,000 at 120 °C	100 - 130	~ 180 at 120 °C	no hazard labeling, high initial strength for high-tension bonding
Jowatherm® PUR MR 609.93	PUR MR	~ 14,000 at 120 °C	110 - 130	~ 180 at 120 °C	“all-rounder” without hazard labeling

1C PUR Prepolymer Adhesives for Lightweight Panels

	Based on	Viscosity [mPas]	Processing temperature [°C]	Open time [min]	Pressing time [min]	Certificate	Remarks
Jowapur® 685.04	1C PUR prepolymer	~ 6.250 at 20 °C	> 10	3 - 5 at 20 °C	10 - 15 at 20 °C	-	very fast assembly adhesive
Jowapur® 685.08	1C PUR prepolymer	~ 6.000 at 20 °C	> 10	7 - 9 at 20 °C	28 - 34 at 20 °C	-	fast assembly adhesive
Jowapur® 685.12	1C PUR prepolymer	~ 6.000 at 20 °C	> 10	7 - 12 at 20 °C	20 - 30 at 20 °C	A.1/3.18 e	fast surface adhesive with IMO approval
Jowapur® 685.33	1C PUR prepolymer	~ 5.900 at 20 °C	> 10	25 - 30 at 20 °C	60 - 70 at 20 °C	A.1/3.18 e	surface adhesive with IMO approval and medium processing time
Jowapur® 685.61	1C PUR prepolymer	~ 6.800 at 20 °C	> 10	57 - 63 at 20 °C	125 - 135 at 20 °C	-	surface adhesive with long processing time
Jowapur® 685.92	1C PUR prepolymer	~ 7.000 at 20 °C	> 10	85 - 95 at 20 °C	260 - 280 at 20 °C	-	surface adhesive with wide range of adhesion

Appretur for Lightweight Panels

	Based on	Viscosity [mPas]	Processing temperature [°C]	Appearance	Remarks
Appretur Jowat® 109.00	1-comp. PU	~ 80 at 20 °C	> 10	white opaque	no hazard labeling, can be colored individually
Appretur Jowapur® 678.05	1-comp. PU	~ 70 at 20 °C	> 10	brownish	very fast flash-off

Only in the Right Packaging, Will the Adhesive Be Perfectly Adapted to the Process.



Jowat adhesives are renowned all over the world for their efficiency. The choice of the optimum supply form and packaging can release the full potential in the manufacturing process of the customer. Apart from legal requirements and technical data for a packaging solution, other major factors in the choice of the packaging are convenience and sustainability. Jowat therefore provides a wide range of packaging solutions adapted to the corresponding process.

Manufacture of Wood Windows

Apart from providing protection against the weather, windows are equally a source of light or fresh air. Established windows today are made from wood, plastic, aluminum or two-material composites which have to meet a wide range of additional functions, for instance with regard to burglar resistance or thermal insulation. In addition to the design, functionality, and long-term weathering resistance, cost-effective production is also a major aspect.



Adhesives for Wood Windows

	Based on	Type	Open time [min]	Durability class	Remarks
Jowacoll® 102.26	PVAc	2 components	7 - 10 at 20 °C	D4 (2K) WATT91 > 7 N/mm²	“all-rounder,” also for HF pressing
Jowacoll® 107.20	PVAc	1 component	9 - 11 at 20 °C	D4 WATT91 > 7 N/mm²	ready-to-use without addition of hardener
Jowacoll® 102.40	EPI	2 components	4–6 at 20°C	D4 WATT91 > 7 N/mm²	Low viscosity EPI for wood species that are difficult to bond
Jowacoll® 102.50	EPI	2 components	8 - 12 at 20 °C	D4 (2K) WATT91 > 7 N/mm²	for wood types difficult to bond
Jowapur® 685.30	1K PUR prepolymer	1 component	25 - 35 at 20 °C	D4 WATT91 > 7 N/mm²	high resistance to water and heat

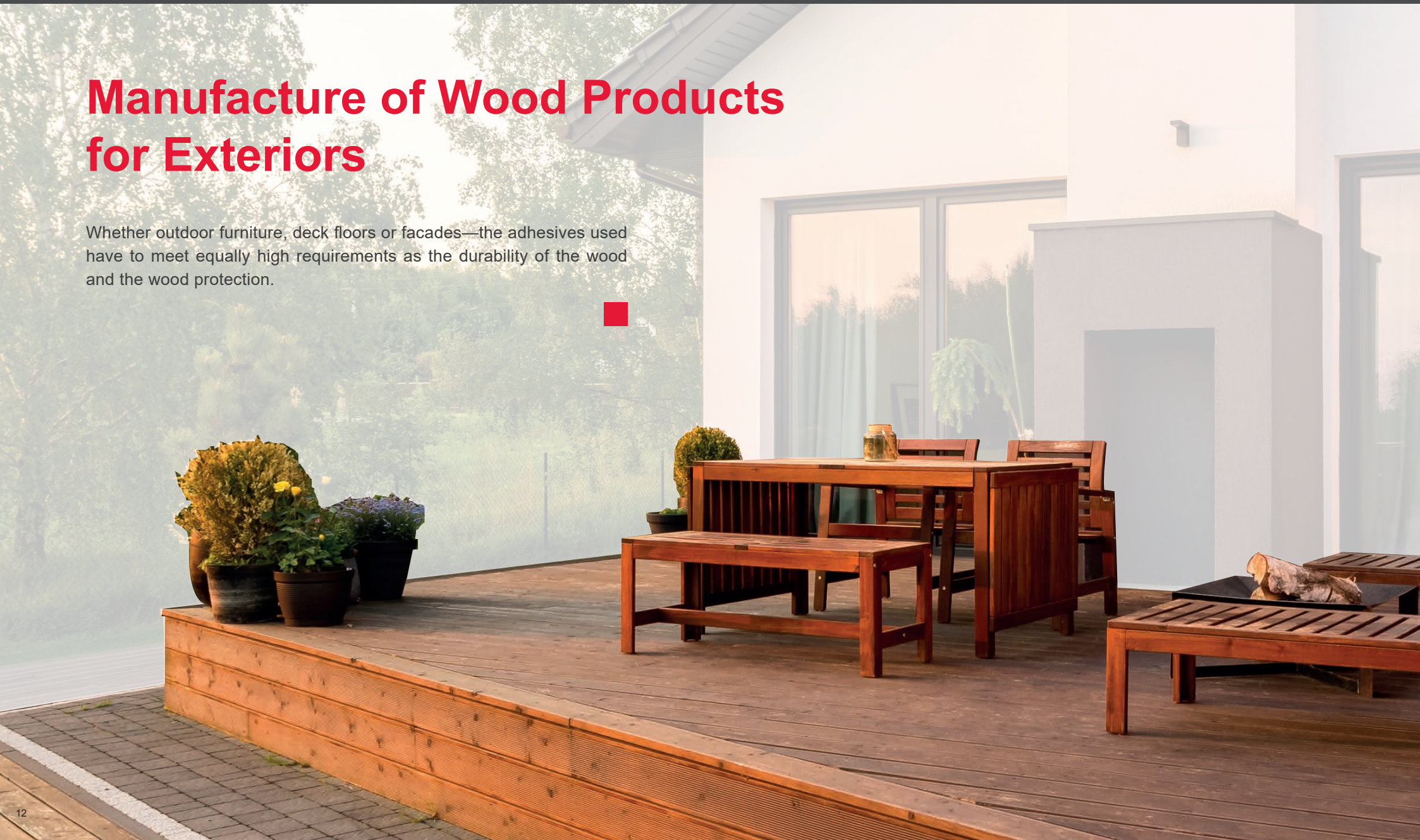
Tensile Shear Strength



When determining the heat resistance in accordance with the testing standard DIN EN 14257 (Watt 91), tensile shear strengths of > 10 N/mm² are achieved at 80° Celsius. Values of > 7 N/mm² would already be sufficient to meet the recommendation for the manufacture of window scantlings. Several adhesive systems also considerably exceed the tensile shear strengths required for durability class D4 (according to DIN EN 204/205).

Manufacture of Wood Products for Exteriors

Whether outdoor furniture, deck floors or facades—the adhesives used have to meet equally high requirements as the durability of the wood and the wood protection.



Dispersion Adhesives for Garden Furniture and Protected Exteriors

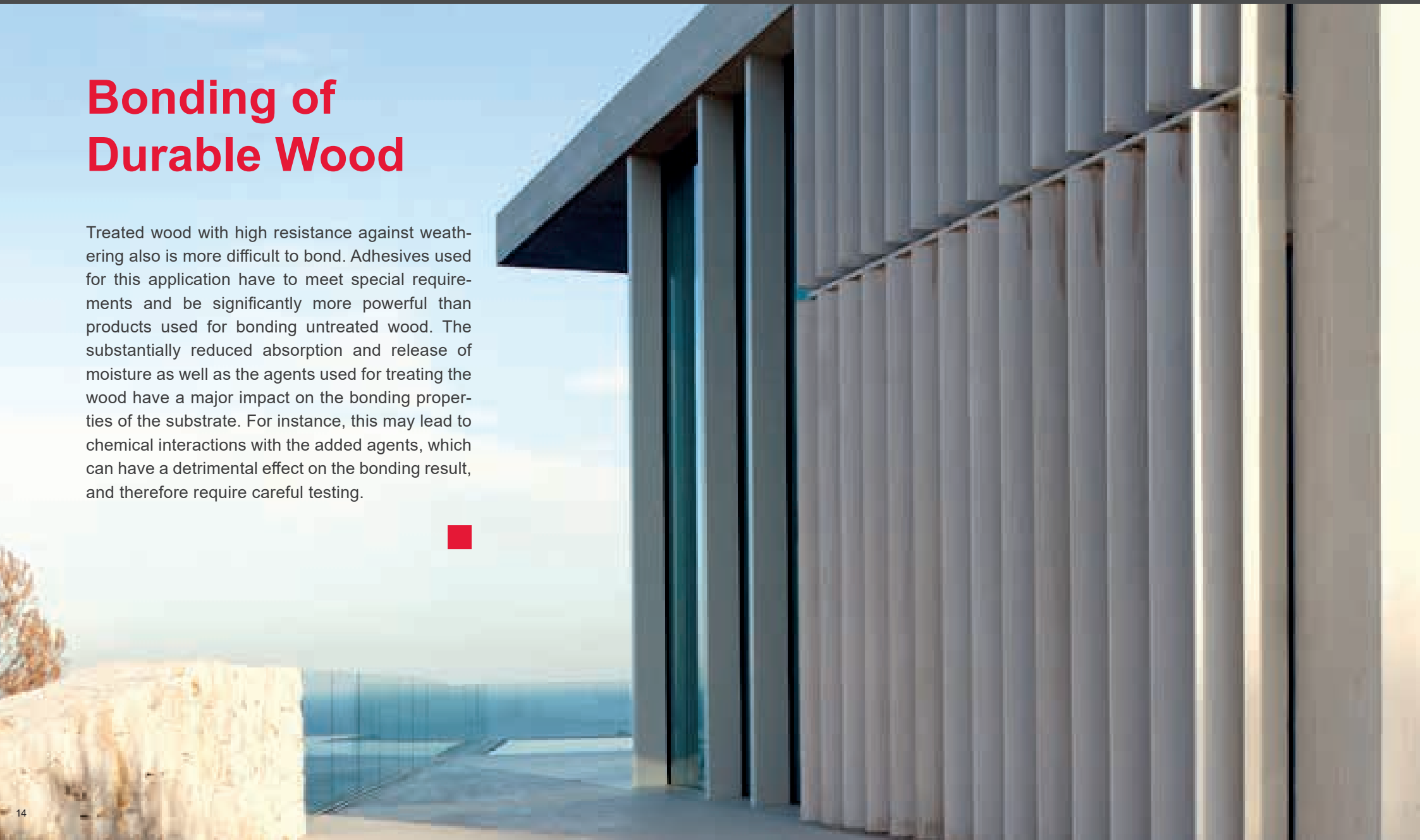
	Based on	Type	Open time [min]	Durability class	Remarks
Jowacoll® 102.26	PVAc	2 component	7 - 10 at 20 °C	D4 (2K) WATT91 > 7 N/mm²	"all-rounder," also for HF pressing
Jowacoll® 102.27	PVAc	2 component	8 - 10 at 20 °C	D4 WATT91 > 7 N/mm²	high viscosity for highly absorbent substrates
Jowacoll® 107.20	PVAc	1 component	9 - 11 at 20 °C	D4 WATT91 > 7 N/mm²	ready-to-use without addition of hardener
Jowacoll® 102.40	EPI	2 components	4–6 at 20°C	D4 WATT91 > 7 N/mm²	Low viscosity EPI for wood species that are difficult to bond
Jowacoll® 102.50	EPI	2 component	8 - 12 at 20 °C	D4 (2K) WATT91 > 7 N/mm²	for wood types difficult to bond

1C PUR Prepolymer Adhesives for Garden Furniture and Protected Exteriors

	Based on	Viscosity [mPas]	Processing temperature [°C]	Open time [min]	Pressing time [min]	Certificate	Remarks
Jowapur® 685.12	1C PUR prepolymer	~ 6.000 at 20 °C	> 10	7 - 12 at 20 °C	20 - 30 at 20 °C	A.1/3.18 e	fast surface adhesive with IMO approval
Jowapur® 687.40	1C PUR prepolymer	~ 8.000 at 20 °C	> 10	30 - 40 at 20 °C	105 - 120 at 20 °C	A.1/3.18 e	adhesive with very wide range of adhesion and IMO approval
Jowapur® 687.22	1C PUR prepolymer	~ 8.700 at 20 °C	> 10	16 - 20 at 20°C	55 - 60 at 20°C	-	fast assembly adhesive with wide range of adhesion

Bonding of Durable Wood

Treated wood with high resistance against weathering also is more difficult to bond. Adhesives used for this application have to meet special requirements and be significantly more powerful than products used for bonding untreated wood. The substantially reduced absorption and release of moisture as well as the agents used for treating the wood have a major impact on the bonding properties of the substrate. For instance, this may lead to chemical interactions with the added agents, which can have a detrimental effect on the bonding result, and therefore require careful testing.

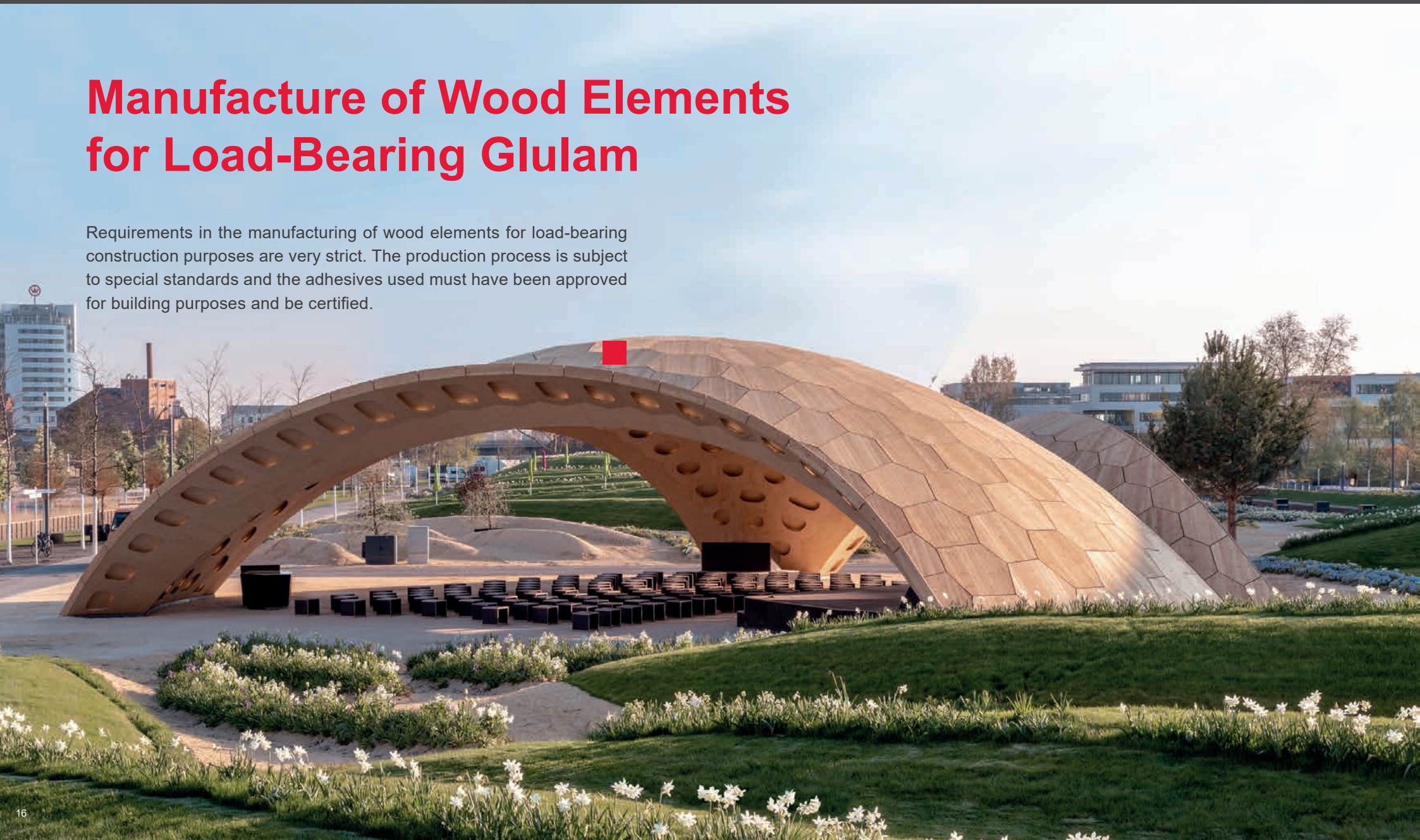


Adhesives for Durable Wood

	Based on	Viscosity [mPas]	Processing temperature [°C]	Open time [min]	Remarks
Jowacoll® 102.40	EPI	~5,000 at 20°C	> 15	4–6 at 20°C	low viscosity EPI for wood types difficult to bond
Jowacoll® 102.50	EPI	~ 11.000 at 20 °C	> 15	8 - 12 at 20 °C	for wood types difficult to bond
Jowapur® 687.40	1C PUR prepolymer	~ 8.000 at 20 °C	> 10	30 - 40 at 20 °C	very wide range of adhesion

Manufacture of Wood Elements for Load-Bearing Glulam

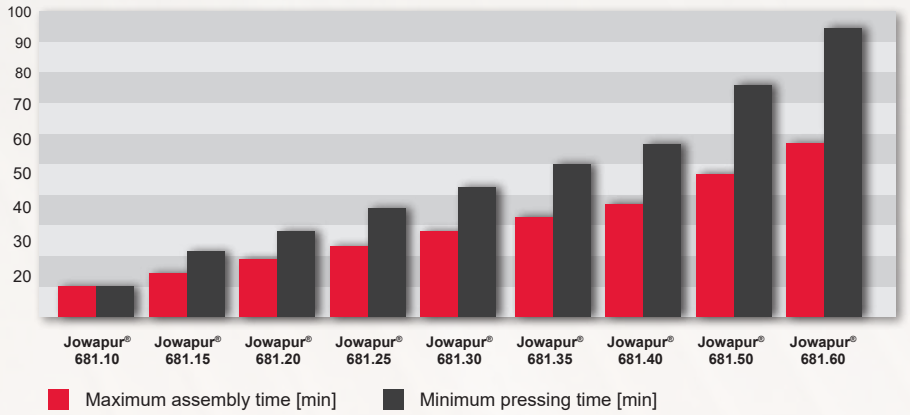
Requirements in the manufacturing of wood elements for load-bearing construction purposes are very strict. The production process is subject to special standards and the adhesives used must have been approved for building purposes and be certified.



1C PUR Prepolymer Adhesives for Load-Bearing Glulam

	Based on	Viscosity [mPas]	Assembly time [min]	Minimum pressing time [min]	Characteristics	Remarks
Jowapur® 686.20	1C PUR prepolymer	~ 10.200 at 20 °C	10 (acc. to processing directions)	as specified in standard	Adhesive type: EN 15425 - I - 70 - FJ - 0,1 - w	fiber-reinforced, for fingerjointing
Jowapur® 686.30	1C PUR prepolymer	~ 10.200 at 20 °C	15 (acc. to processing directions)	~ 45 (or as specified in standard)	Adhesive type: EN 15425 - I - 70 - GP - 0,3 - w	fiber-reinforced, for fingerjointing and laminating
Jowapur® 686.60	1C PUR prepolymer	~ 10.500 at 20 °C	45 (acc. to processing directions)	~ 135 (or as specified in standard)	Adhesive type: EN 15425 - I - 70 - GP - 0,3 - w	fiber-reinforced, for fingerjointing and laminating
Jowapur® 681.xx	1C PUR prepolymer	~ 15.500 at 20 °C	10 - 60 dep. on adhesive type	10 - 100 dep. on adhesive type	Adhesive type: EN 15425 - I - 70 - GP - 0,3 - w	adhesive series with optimized assembly/pressing time ratio

Jowapur® 681.xx - Maximum assembly time / minimum pressing time



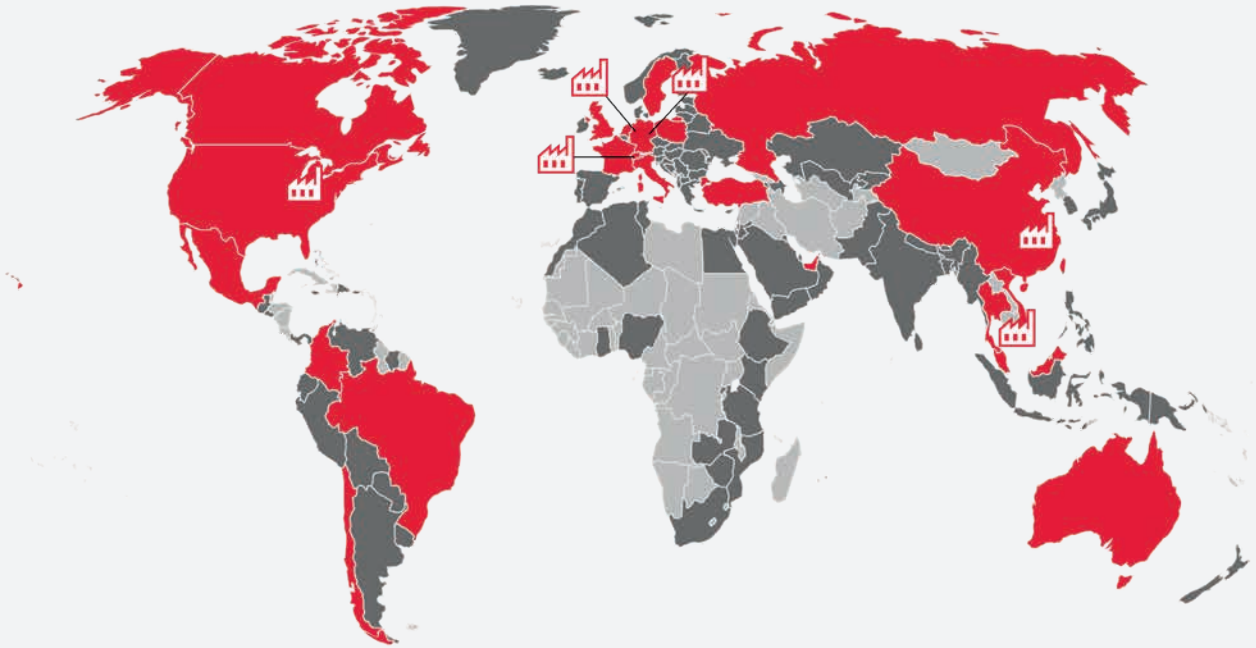
Jowat - Our Word is Our Bond

Jowat SE with headquarters in Detmold is one of the world's leading suppliers of industrial adhesives. These are mainly used in woodworking and furniture manufacture, in the paper and packaging industry, for graphic arts, in the textile, automotive as well as in the electrical industry. The company was founded in 1919 and has manufacturing sites in Germany in Detmold and Elsteraue, plus three other producing subsidiaries, Jowat Corporation in the USA, Jowat Swiss AG, Jowat Manufacturing in Malaysia and Jowat China Adhesives. The supplier of all adhesive groups is manufacturing over 100,000 tonnes of adhesives per year, with about 1,300 employees., A global sales structure with 23 subsidiaries plus solution partners is guaranteeing local service with close customer contact.



Have We Sparked Your Interest?

Jowat actively supports innovation in the bonding of wood and wood-based materials with a deep understanding of the materials to be bonded—be it special physical properties, different material combinations, requirements for high resistance and durability in exterior applications, or energy- and cost-efficiency and a growing variety of application fields.



Manufacturing locations
Markets with Jowat Group companies
Markets with Jowat distribution partners

We provide a comprehensive advisory service and competent know-how for the entire process: From the continual search for and testing of new, sustainable raw materials, to the development of innovative adhesive products in close contact with sub-suppliers and processors, to application-related support, and to individual process analyses. For many decades, Jowat solutions for modern wood processing have played a key role in the optimization of products and processes - in a future-oriented and sustainable way.

Have we sparked your interest? Contact us! We look forward to working together.

The information given in this leaflet is based on test results from our laboratories as well as on experience gained in the field, and does in no way constitute any guarantee of properties. Due to the wide variety of different applications, substrates, and processing methods that are beyond our control, no liability may be derived from these indications nor from the information provided by our free technical advisory service. Before processing, please request the corresponding data sheet and observe the information in it! Customer trials under everyday conditions, testing for suitability in normal processing conditions, and appropriate fit-for-purpose testing are absolutely necessary. For the specifications and for further information, please refer to the latest technical data sheets

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