Product Information

Jowapur®
Interior lamination

Polyurethane dispersions (PUD) for interior lamination

Comprehensive PUD portfolio for all lamination processes of interior trim

High temperature resistance

Low VOC and fogging values

Jowat Klebstoffe

Jowapur® - Interior lamination

INFO: PU dispersions

Polyurethane dispersions are a heterogeneous mixture of at least two substances which do not or barely dissolve or react chemically with each other. One- and two-component reactive dispersions impress with superior heat and moisture resistance due to the chemical crosslinking reaction in the adhesive in addition to the physical setting process. The two-component reactive polyurethane adhesives are characterised by low reactivation temperatures and higher initial strength in lamination processes compared to thermoplastic hot melt adhesives. Therefore, they are particularly suitable for parts finished in edgefolding applications. Due to high initial strength and minimal creep tendency, they have an excellent resistance to the restoring forces of the lamination materials.

PU dispersions (PUD) for interior lamination

Car interiors play an ever more important role in purchase decisions. Customers increasingly expect a welcoming, living-room-like atmosphere. Consequently, decor materials for the lamination of the panelling have become more exquisite. The technical manufacturing process and the laminating used adhesives have to meet the requirements of the new materials.

Car interiors in the 70s and 80s still had many painted metal parts, especially the A, B and C columns were the last metal surfaces to be covered with trim. At first, only plastic materials were used, and later these plastic materials were painted. Over the years, the plastic trims were laminated with foils and textiles to create premium surfaces. The development of the adhesives used in the lamination process has constantly been adapted to the latest material combinations.
PU dispersions have proven to be a reliable and innovative “workhorse” in this development. These adhesives are an essential pillar for modern manufacturing processes for car interiors. The application technology for PU dispersions has also advanced rapidly and today the substrates can be coated with virtually zero overspray and the “blue caves” become a thing of the past. Modern PU dispersions are adapted to the special requirements of the manufacturing process, such as short cycle times, high green strength, as well as manual und automated lamination. They meet the demands for resistance to temperature, climate change and moisture, and are characterised by minimal VOC and fogging values.

Jowapur® dispersions are used especially for the lamination with decorative thermoplastic foils made of PVC, PU or polyolefin, and for textile foam and fleece composites as well as for real leather lamination in vacuum deep-drawing or stamp-press processes for the production of instrument panels, door trims, headliners and column trims.

Jowat supplies a wide range of PU dispersions and crosslinking agents which have been especially adapted for these adhesives. With this portfolio, all lamination processes for car interiors are covered.

Technical information

Application

For laminating thermoplastic foils made of PVC, PU or polyolefin, as well as for textile foam and fleece composites, and for real leather lamination on fibre compound materials and plastic (e.g. ABS, ABS blends, PP and NFPP substrates).

Directions for use

PU dispersions are applied by spraying, usually on the carrier part. When textiles are laminated, the additional application of a small quantity of adhesive to the textile may be advantageous. In order to achieve the required quality standards of the automotive industry, it is essential to use the adhesive with a crosslinking agent. The quantity of the crosslinking agent depends on the materials to be bonded and the required properties of the laminated parts. The optimum temperature of the adhesive mix is between 18 °C and
25 °C. Parts which have cooled down too far must be stored for at least 24 h before use in a warm room. We recommend that all materials coming into contact with the glue are made of high-quality stainless steel (German standard V2A according to DIN EN 10027 – W No. 1.4301 or better) or of inert plastics. Avoid contact with other metals (e.g. zinc, brass, copper or aluminium).

Cleaning

Clean with water.

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Product overview

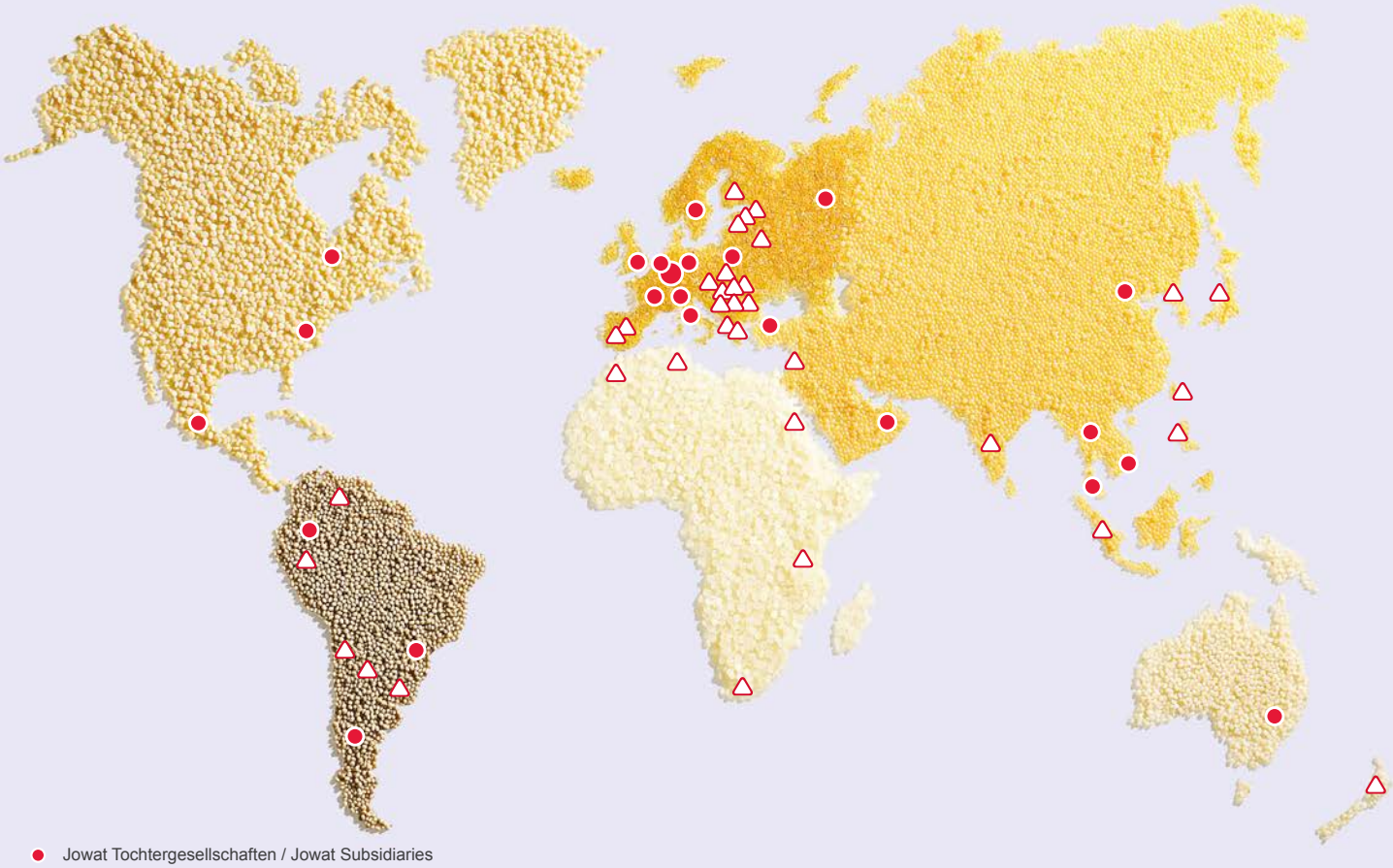
The following table provides an overview of our PU dispersions from the **Jowapur®** product series for the lamination of car interiors. The portfolio provides products for all established lamination processes,such as door side trims, door panels, armrests, instrument panels, as well as ABC columns. The table also provides an overview of the different applications and standard material combinations for the dispersions. All data refers to the adhesive mixed with 5 % crosslinking agent **Jowat® 197.65.** For professional advice, please contact our Sales Representatives.

		BASIC "ALL-ROUNDER"	AUTOMATED PROCESSES	HIGH-PERFORMANCE	COLD CONTACT BONDING
		Jowapur® 158.01 + crosslinking agent from the 197 series	**Jowapur® 158.29** + crosslinking agent from the 197 series	**Jowapur® 158.97** + crosslinking agent from the 197 series	**Jowapur® 157.07** + crosslinking agent from the 197 series
Technical Data	Viscosity [Haake 330 1/s, mPas]	approx. 190	approx. 270	approx. 270	approx. 280
	Solids content [%]	approx. 50	approx. 43	approx. 46	approx. 41
	pH value	approx. 8,2	approx. 7,8	approx. 7	approx. 8
	Appearance of the dry adhesive film (without crosslinker)	white	white	opaque	opaque
	Reactivation temperature	> 60 °C	> 60 °C	> 60 °C	contact adhesive
	Tack at RT	●	●	●	●
	Tack at + 60 °C	●	●●	●●●	●●
Application data (with 5 % crosslinker)	Roller application	●●	●●●	○	●
	Spray application	●●●	●●●	●●●	●●●
	Green strength	●	●●	●●●	●●
	Final strength	●●●	●●●	●●●	●●●
	Heat resistance	●	●●	●●	●●●
	Edgefolding	●	●●	●●●	●
	Applications	flat lamination	flat lamination, mechanical edgefolding	flat lamination, manual edgefolding	flat lamination, reactivated by heat also 1-sided
	Material combinations	plasticised PVC, TPO foil, fibre materials, plastics (e.g. ABS, PVC, TPO)	plasticised PVC, TPO foil, fibre materials, plastics (e.g. ABS, PVC, TPO)	real leather, plasticised PVC, TPO foil, fibre materials, plastics (e.g. ABS, PVC, TPO)	carpet, fibre materials, plastics (e.g. ABS, PVC, TPO)

○ not suitable ● good
●● very good ●●● excellent

The information given in this leaflet is based on practical experience and on results of tests in our laboratory, and does in no way constitute any guarantee of properties. In light of the huge diversity of materials and the fact that we have no influence either on the substrates or on the process, no liability may be derived from these indications nor from the recommendations made by our free technical advisory service. Customer trials are absolutely necessary. Before processing, please request the corresponding data sheet and comply with the indications in it!

Jowat | Ihr Partner in Sachen Kleben
Jowat | Your Partner in bonding



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