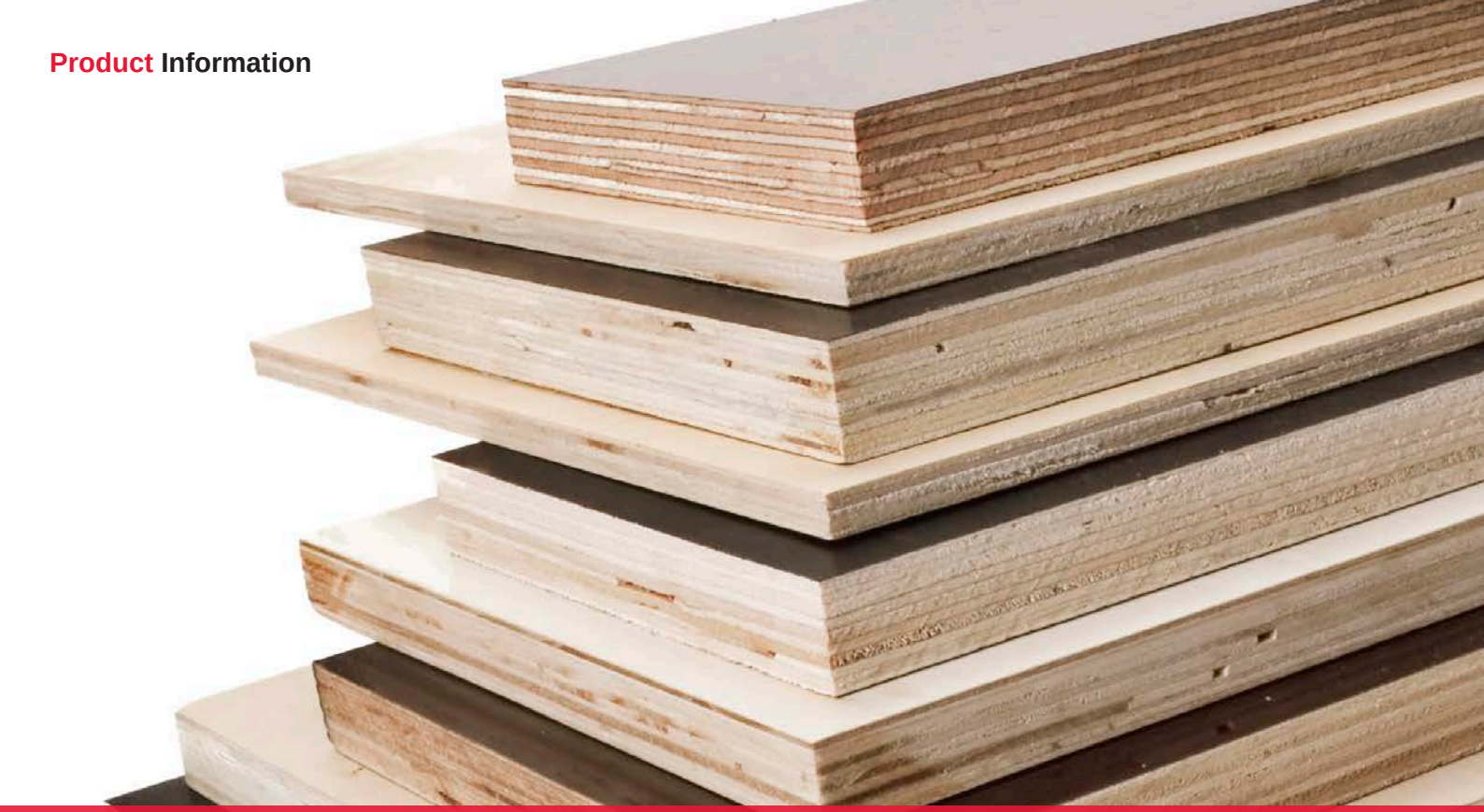
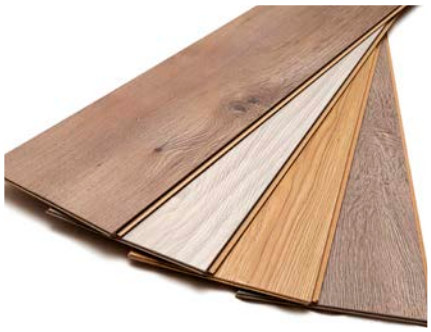
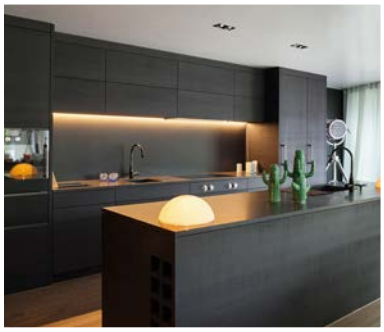
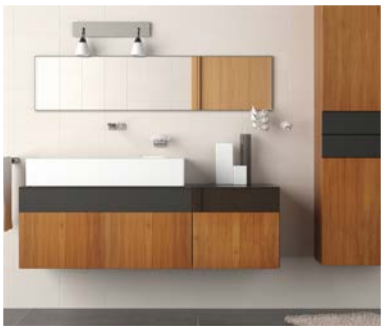


Jowacoll®
Flat lamination





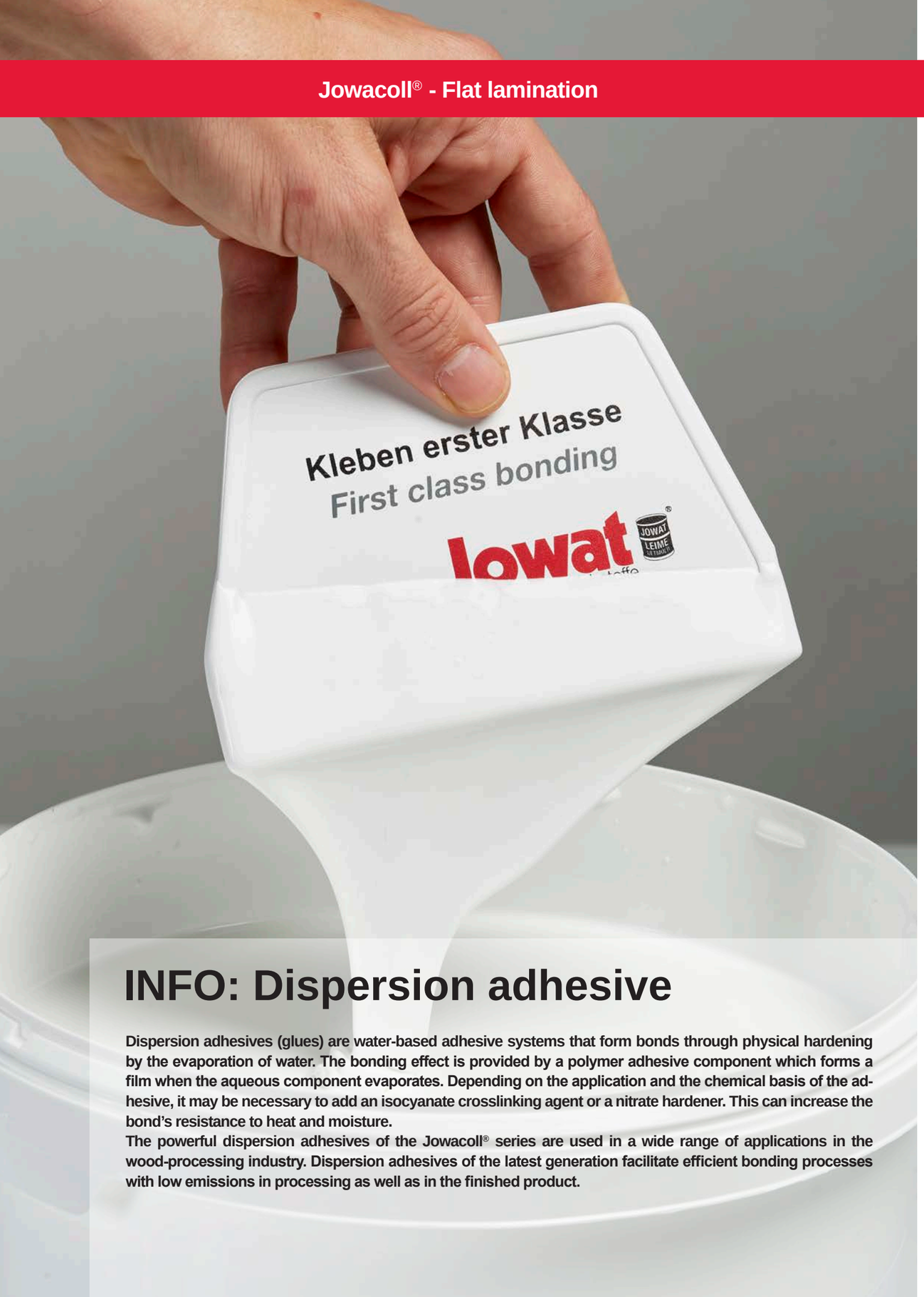


Jowacoll®- dispersion adhesives for flat lamination

Modern adhesives portfolio with solutions for all process requirements

Free from solvents, and low formaldehyde emissions

Jowat Klebstoffe



INFO: Dispersion adhesive

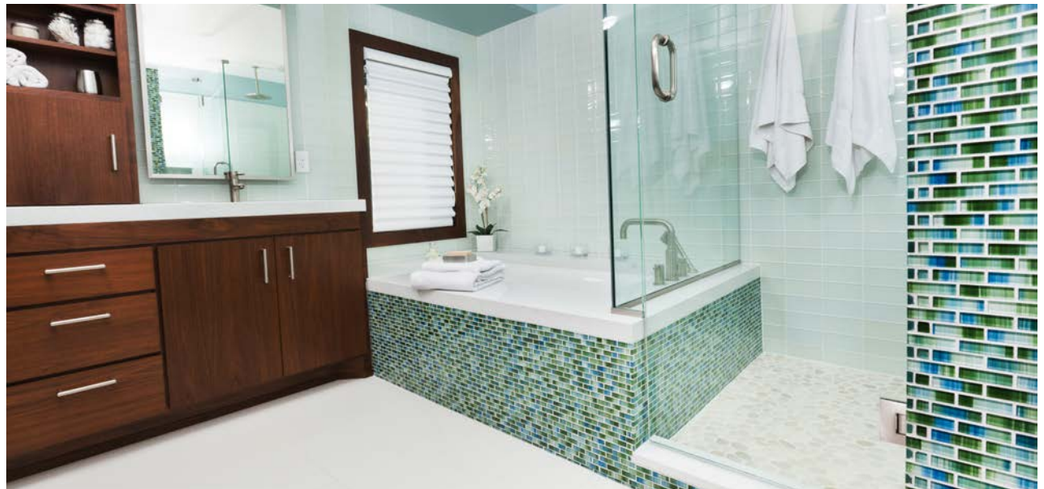
Dispersion adhesives (glues) are water-based adhesive systems that form bonds through physical hardening by the evaporation of water. The bonding effect is provided by a polymer adhesive component which forms a film when the aqueous component evaporates. Depending on the application and the chemical basis of the adhesive, it may be necessary to add an isocyanate crosslinking agent or a nitrate hardener. This can increase the bond's resistance to heat and moisture.
The powerful dispersion adhesives of the Jowacoll® series are used in a wide range of applications in the wood-processing industry. Dispersion adhesives of the latest generation facilitate efficient bonding processes with low emissions in processing as well as in the finished product.

Jowacoll® - Flat lamination

Dispersion adhesives for flat lamination

The term 'flat lamination' comprises a wide range of applications, products, and substrates in the wood and furniture industry.
However, they all have one thing in common: Flat lamination is the partial or full-surface bonding of two or more substrates or substrate layers.
In the modern furniture or wood-based material manufacture, carrier boards are coated with the most different surfaces. Frequently used materials apart from decor papers and veneers are thermoplastic foils, CPL, and HPL. The fields of application are vast: In the door and flooring industry multi-layer assemblies are manufactured in a single operation. From the core layer to possible functional layers and to the finished surface, operations and pressing times can thus be reduced. Multi-layer modular assemblies have become established in the flooring industry. Materials like PET, TPU, or vinyl require special adhesive systems to reach maximum adhesion. **Jowacoll®** foil adhesives are adapted precisely to those requirements. The adhesion and moisture resistance can be increased further in individual applications by mixing a crosslinker into the adhesive.

Adhesives based on urea formaldehyde (UF) resins were the state of the art for many years. Lately, they have increasingly come under critical scrutiny due to modern health and environmental concerns and are unsuitable for many of the new materials. The dispersion adhesives of the **Jowacoll®** series are among the efficient alternatives due to lower VOC emissions and therefore a reduction of harmful ingredients.
The portfolio of **Jowacoll®** dispersion adhesives provides the right adhesive for all applications, all substrates to be bonded and the individual process conditions. Whether to prevent the bleeding through veneers or to minimise the moisture when bonding non-absorbent substrates – special formulations of the dispersions ensure maximum quality.



Classification and assessment of thermoplastic adhesives

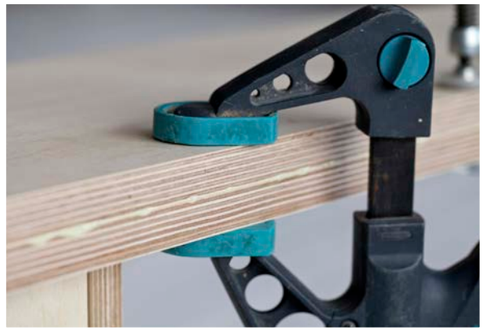
PVAc dispersion adhesives are usually classified into four durability classes (D1 – D4) based on their moisture resistance according to the EN 204 standard. Jowat supplies a range of different adhesives for each durability class. The product portfolio provides a broad spectrum of products for indoor applications (relative humidity <15 %), for wet environments (high humidity and short-term exposure to water), as well as for outdoor applications exposed to weathering with an appropriate surface protection.
A testing procedure for heat resistance is described in DIN EN 14257 (WATT '91). The standard only specifies how heat resistance is to be evaluated and does not prescribe a minimum requirement. There is only a minimum requirement for manufacturing window scantlings. RAL-certified window scantlings have to meet a minimum tensile shear strength of 7 N/mm². Many Jowacoll® dispersions fulfil this requirement.

Technical information

Applications

For laminating wood-based substrates with thermoplastic foils (e.g. PVC, PMMA, ABS, PET), laminates (e.g. CPL, HPL), resinated decor paper (e.g. finish foils), or veneer.

Directions for use



Jowacoll® dispersion adhesives for flat lamination can be applied by roller, spraying, curtain coating, or as a bead. Depending on the application method, adhesives with the suitable specification, e.g. viscosity, should be chosen.
In general, the properties and the type of the substrates to be bonded should be taken into consideration when choosing an adhesive. Porous and moisture-absorbing substrates like veneer require another adhesive compared to non-absorbent substrates with a low surface tension. An example for this are bonding operations involving materials based on polymer.
Dispersion adhesives are largely physically drying systems and therefore the ambient conditions at the place of processing play a major role. Also, one of the substrates needs to be absorbent. High temperatures and low humidity reduce the assembly and pressing times. The minimum film-forming temperature (in short MFFT) is the lowest temperature of the substrates, ambient air, and adhesive at which the polymers will coalesce to a continuous film and form a resistant adhesive film. MFFT can vary from adhesive to adhesive. Reactive dispersions continue to crosslink for several days after they have been applied and usually reach their final strength after 7 days.
Please observe our technical data sheets and let our Application Specialists advise you before processing adhesives.

Jowacoll® - Flat lamination

Product overview

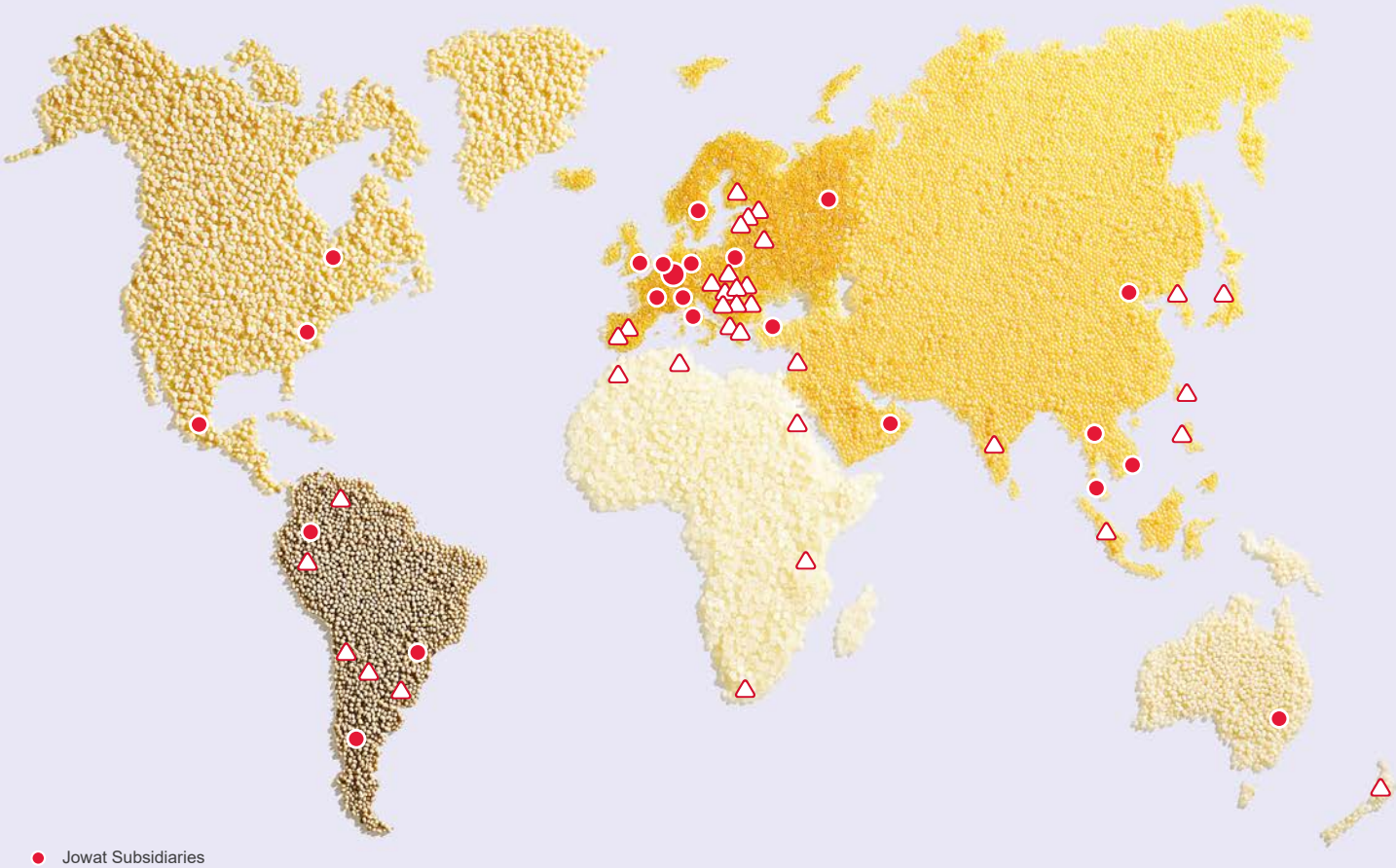
The table below provides an overview of our tried-and-proven dispersion adhesives of the Jowacoll® series for flat lamination. The product range comprises different product types with special performance characteristics adapted to the general process requirements in laminating applications. The products have been developed to meet the different requirements which arise from the production process as well as from the carrier and lamination substrates. Please contact our Sales Representatives for a more extensive advisory service and adhesive selection.

		HIGH SOLIDS CONTENT	VENEERING GLUE	BASIC "ALL-ROUNDER"	HIGH INITIAL STRENGTH	D3 PH-NEUTRAL	FOIL ADHESIVE
		Jowacoll® 124.00 (PVAc)	**Jowacoll® 124.79** (PVAc)	**Jowacoll® 103.10** (PVAc)	**Jowacoll® 103.30** (PVAc)	**Jowacoll® 103.70** (PVAc)	**Jowacoll® 148.70** (EVA)
Technical data	Durability class	D2	D2	D3	D3 + WATT 91	D3	D2
	Viscosity at 20 °C [mPas]	approx. 9,500	approx. 19,500	approx. 11,000	approx. 12,500	approx. 10,000	approx. 10,000
	Solids content [%]	67	56	50	53	50	66
Carrier substrates	Wood, wood-based materials (MDF, particleboard, plywood, ...)	●	●	●	●	●	●
Lamination substrates	Decor paper	●	●	●	●	●	●
	Thermoplastic foils (untreated) (PVC, PET, PMMA, ...)						●
	Thermoplastic foils (primed) (PVC, PET, PMMA, ...)	○	○	●	●	○	○
	Laminates (CPL, HPL, ...)	●	●	●	●	●	○
	Metallic foils (aluminium, steel, ...)			●	●	●	○
	Veneer (fleece-backing), raw veneer	○	●	○	○	●	○

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. No liability may be derived from these indications nor from the recommendations made by our technical advisory service. Customer trials are recommended. Please request an individual data sheet before processing and follow the instructions in it.

○ technically convenient ● technically preferred

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



Jowat – Kleben erster Klasse
Jowat – first class bonding

www.jowat.com

Jowat Klebstoffe

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