

# Flat lamination

- Formaldehyde-free with dispersion and hot melt adhesives
- Polyolefin hot melts for very hard surfaces
- PUR hot melt adhesives for kitchen and bathroom



# Modern adhesive systems for perfect surfaces



In modern furniture manufacture, wood-based panels are surface-laminated with the most diverse materials. Apart from resinated decor papers and veneers, of thermoplastic foils, CPL and HPL are frequently used. These materials are bonded using a variety of technologies which demand specific optimised adhesive solutions. For years, the state of technology was processing with Urea Formaldehyde (UF) adhesives. These are, however, viewed with growing reserve, due to current aspects of health and ecology. Innovative Jowat adhesive systems on dispersion or hot melt bases are the efficient alternatives.

When the surfaces are decor foils, CPL, HPL or veneer, a number of dispersions have become established which are tailored for the respective processes. Actually D2 products are in use - either based on PVAc like **Jowacoll® 124.00** or on EVA like **Jowacoll® 148.00** - but also reactive dispersions of durability class D3, like for instance **Jowacoll® 103.05**. Usually, the adhesive is applied by roller onto the base materials and pressing can be carried out subsequently with cold, but also with hot pressing methods, Roller laminators are often used in throughfeed lines and stationary pressing times are not necessary.

In veneering operations, special settings can minimize a penetration of the glue, and the risk of discolourations can also be successfully reduced or eliminated by adjusting the pH value of the dispersion. In flat lamination, a crucial factor for quality is a smooth and even surface appearance. Any slight or more pronounced surface swelling of the wood-based substrate is prevented when using hot melt adhesives (solid content of 100 %).

The adhesive **Jowat-Toptherm® 236.50** is a product which sets new standards with regard to performance and efficiency. As unfilled polyolefin system, **Jowat-Toptherm® 236.50** allows application amounts which are optimized. The most important factor for a visually appealing and smooth surface that is at the same time resistant, is a thin, hard bondline. Highest surface quality and low VOC emissions are outstanding performance factors of this adhesive. Superior results with regard to surface quality are a consequence of the high impact resistance (Shore hardness) of the adhesive. The product is also convincing when temperatures are higher, and possible defects caused during panel stacking in the factory is efficiently prevented.

The highest strength and impact resistance levels, for instance for kitchen and bathroom cabinets, can be achieved with moisture-resistant polyurethane hot melt adhesives of the **Jowatherm-Reaktant®** family. Especially for modern high gloss plastic surfaces based on thermoplastic foils, products

like **Jowatherm-Reaktant® 609.40** are the products of choice. The PUR hot melt adhesives are convincing due to their low processing temperatures, an excellent adhesion to difficult substrates and their superior long-term durability.

## Jowacoll® 124.00

PVAc glue for flat bonding of veneers and laminate panels to particleboard also for doubling of particleboard.  
Fast setting and gap-filling.

Polymer basis		PVAc
Viscosity at 20 °C	[mPas]	9,500
Density	[g/cm³]	1.24
Min. pressing time at 20 °C	[min]	2
Min. pressing time at 60 °C	[min]	1
pH value		approx. 7.0
Durability class		D2



## Jowat-Toptherm® 236.50

Polyolefin hot melt adhesive for flat lamination. High hot tack, good adhesion to finish foils on paper bases and thermoplastic foils. High heat resistance.

Polymer basis		PO
Viscosity at 190 °C	[mPas]	9,000
Density	[g/cm³]	0.87
Processing temp.	[°C]	180 - 200
Hardness Shore A at 20 °C		approx. 90
Softening range	[°C]	approx. 110 (Kofler bench)
Supply form		granulate



## Jowatherm-Reaktant® 609.40

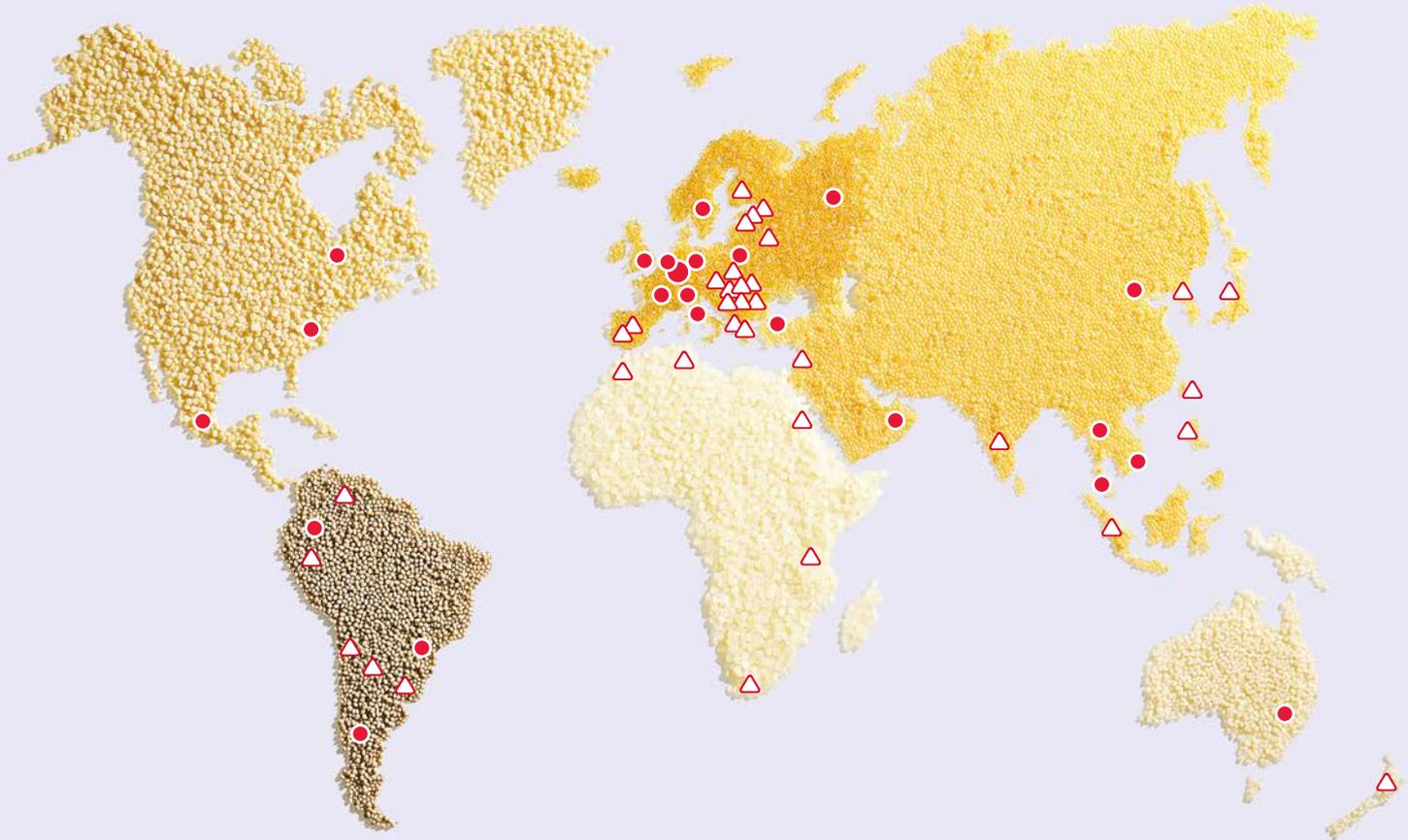
For the manufacture of compound panels / flat lamination.  
Polyurethane hot melt adhesive for flat lamination and for the manufacture of compound panels. Very good adhesion.  
Low processing temperature.

Polymer basis		Polyurethane
Viscosity at 120°C	[mPas]	approx. 7,000
Processing temp.	[°C]	100 - 120
Density	[g/cm³]	approx. 1.1
Open time	[min]	approx. 4
Reaction time	[d]	approx. 3



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**Jowat – Kleben erster Klasse**  
**Jowat – first class bonding**

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