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Invisible Glue Line with KLEIBERIT PUR HM 707.9- Now at LIGNA

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Lack of a visual glue line is what the furniture industry has wanted to see for years, or in other words what it didn't want to see. There have been a number of different approaches over the years. The results can be evaluated differently.

However, hotmelts for the edgbanding of panels are based on ethylene vinyl acetate (EVA), polyolefin (APAO) or polyamide (PA). They seem unable to fulfill the requirements concerning an invisible glue line on a permanent basis. One important aspect is that during the edgbanding process, the glue line appears to be completely closed – this can generally be assumed when processed correctly.



Over time, at the latest when in daily use by the end customer, environmental influences such as dust, household cleaners, humidity in the room and temperature changes penetrate the formerly closed joint causing even a minimal joint opening to stand out depending on lighting conditions. It is also true that the so called rubber effect plays a role. The following effect is meant: if one repeatedly goes over the edge joint with their hand or a dusty, moist towel, it will appear somewhat darker due to dirt or grease. This is especially impossible to avoid with lighter adhesives and panel materials. One thing is clear: this need not be the case. Modern adhesives from the above mentioned thermoplastic categories are formulated for these

requirements and cope with them, however, only when processed under ideal conditions. There is no getting around this.

Another, although relatively more expensive approach, is to use laser technology to melt a matching colored plastic layer which has been pre-applied to the edge material and to directly bond. There's no question that the glue line is of course somewhat more closed than with the classic bonding technology. However, thermoplastics remain which have the above mentioned negative characteristics of rubber effect, although much less pronounced. A remark has to be made regarding this point: the edgband cannot be "welded" with the panel. This is physically as well as chemically impossible, and this claim is misleading and false. In the meantime, the long-term behavior shows that edges applied with laser technology are critical regarding water and moisture resistance.

As for as the status of thermoplastics. Does an invisible glue line on a permanent basis remain a dream? No way!

The invisible glue line has been around for a long time! Where? At processors who correctly and promptly changed to polyurethane (PUR).

KLEIBERIT PUR HM 707.9 is definitely a classic concerning invisible glue line. It has been used for years and is trusted worldwide. Valued by workshops as well as industrial users. It is the solution for demanding requirements regarding glue line and bonding quality.

Without explicitly emphasizing the invisible glue line, these manufactures have placed their products in the upper market segment. This market segment expects an invisible glue line as a sign of quality.

The rubber effect is unknown with KLEIBERIT PUR HM 707.9. Why? It is a reactive hotmelt which develops an extremely hard glue line. When correctly processed, it is also permanently water resistant.

The apparently effective advertising "welding" need not be considered, as KLEIBERIT PUR HM 707.9 develops a "real" chemical bond with the wood in the panel. And this can only be separated with excessive force. Usually it is actually the edge material which fails and the KLEIBERIT PUR HM 707.9 strong, invisible bond remains.