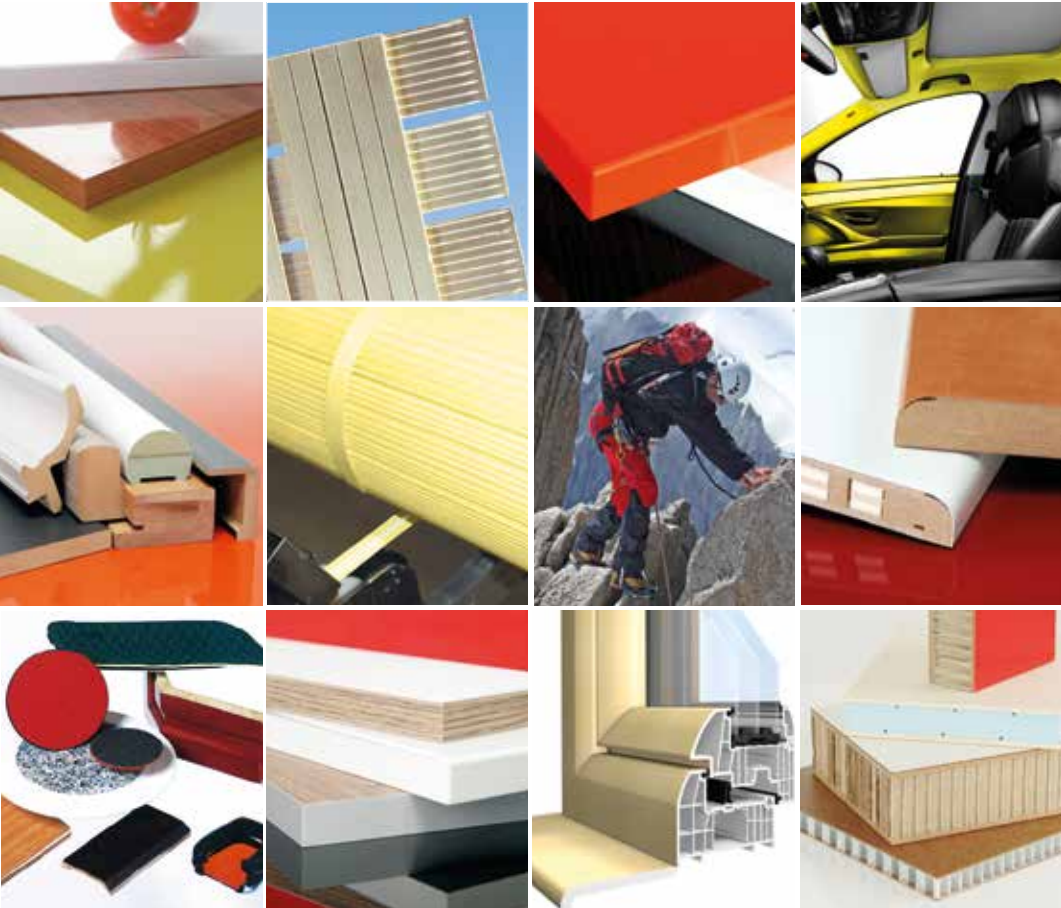


PUR Hotmelt Adhesives



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Automotive Industry

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Fields of application

Automotive Industry

Reactive polyurethane hotmelts are increasingly used in the production of automotive interior panels. A wide variety of different assembly bonds are required. Retainer bonding, the bonding of the steel frames of the sun roofs, window tracks etc. Different materials such as plastics, metals, lacquers, textiles and wood based material can be bonded securely together. The quick cooling of the applied adhesive allows short set times, and the subsequent



chemical cross linking with the aid of moisture guarantees high temperature and climate resistance. Even at low temperature these hotmelts prove to be flexible and tend not to brittle. The adhesive bead cuts off cleanly without stringing, therefore avoiding contamination of the décor area, when the hotmelt is applied robotically.

These adhesive systems are also more frequently used for lamination applications. The adhesive can be applied economically with new application technology.

When using hot melt adhesives the 100% solids are being applied compared to the use of dispersion adhesives which ensures maximum efficiency of adhesive consumption. Complex and cost intensive drying processes of the adhesive film can be avoided.

Flat Lamination

The lamination of flat surfaces with foils, veneers, or papers using thermo laminating or cold laminating equipment is a proven process in the wood working industry.

These processes predominantly use EVA hotmelts and PVAC adhesives. The use of KLEIBERIT PUR hotmelts applied with rollers or slot nozzle, are relatively new applications. These processes require new generation PUR hot-



melts which provide long open time, high green strength and a high final bond strength. Roller applicators are predominantly in use in bonding large areas and use materials, which are less flexible. A typical example is all types of multi layer sandwich elements.

Flat laminating of large areas such as chipboard with more flexible materials such as foils and papers can be done using wide slot nozzles.

Light Weight Panel

The principle of light weight boards for weight reduction and material cost savings is becoming more and more popular in various industries. This requires complex material combinations as well as high tech production. For example PUR hotmelts can be used for honey comb board lamination with modern inline technology, without long press times and unwanted water penetration.



The **706 series** of **KLEIBERIT PUR HM's** are applied either with a conventional heated roller applicator or applied in a foamed form by slot nozzle.

This foaming is achieved with specially designed application machinery which adds argon or nitrogen to the molten adhesive. The **PUR HM** is then applied to the honey comb via slot nozzle and the expanding effect of the foaming process increases the surface of the bonding of the honeycomb.

The pressing of the elements is done via press calendars or roller presses. After pressing, the boards can be stacked immediately in the appropriate stacking systems.

HotCoating

The research and development of PUR hotmelts designed a completely new and innovative surface treatment technology: **HotCoating!**

The HotCoating process means **KLEIBERIT PUR HC 717** is applied to the surface and is then smoothed out. The HotCoating material as well as a reactive PUR hotmelt are being used. The finished HotCoating surface has a

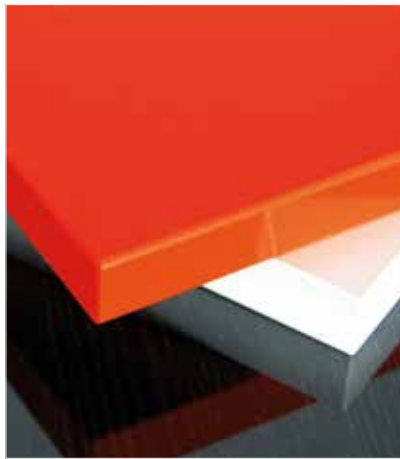


distinguished wear resistance. Due to this and with a high degree of film flexibility this is the ideal surface treatment for parquet, furniture surfaces and pre treated veneers. This simple technology is a real alternative to conventional lacquering lines with their need for multiple sanding and lacquer applications

Edge Banding

Reactive polyurethane hotmelts from **KLEIBERIT** offer solutions for the following requirements:

- International container transport of the furniture industry requires increased and reliable heat resistance.
- The usage of edge materials in wet rooms provides material demands which can only be met by PUR hotmelts.



- Due to new design trends, manufacturing is faced with an ever increasing material matrix which requires universal solutions. Even metals such as aluminium and nearly all types of plastics can be bonded securely with **KLEIBERIT PUR hotmelts**.

Filter Industry

The filter industry has a wide variety of requirements from an adhesive perspective. The adhesives must be able to embed the filters securely and are also subjected a wide range of different environments. For these applications, and in addition to the 2C PUR liquid and epoxy adhesives, hotmelts can be used. They are predominantly used for fold fixing, bonding of the fold bands as well as the bonding of the filter top and sides. Reactive hotmelts are being



used for particularly innovative applications. These combine the positive product properties such as temperature and climate resistance, a permanent flexible glue line with the demands for high green and handling strength. In addition to this reactive polyurethane hotmelts have excellent fogging values. They are low in emission and neutral in odour in their end state.

Fields of application

Assembly Bonding

The application possibilities of polyurethane hotmelts in assembly bonding are literally unlimited. All bond requirements in the wood and craft industries can be met. Mitred areas and edges can be securely bonded. Reactive polyurethane hotmelts combine the advantages of high green strength and high heat, climate and moisture resistance. A further important industry sector is the abrasives industry. Here a variety of different ma-

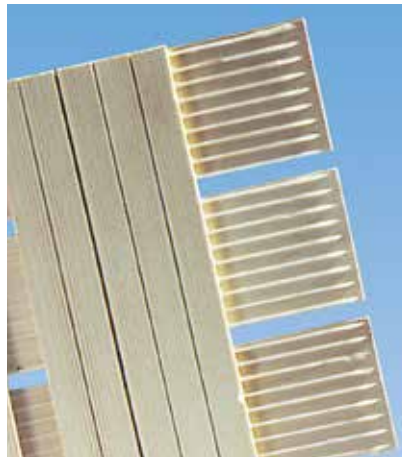


terials are laminated together. In addition to this metal and plastic adaptors are being laminated to the back of abrasive materials. For these applications very high heat resistance combined with an elastic glue line are paramount. Reactive hotmelts are the first choice wherever metal, wood and plastics have to be securely bonded.

Parquet Production

Polyurethane hotmelts have been successful for more than 10 years in the production of 2 and 3 layer parquet.

The range of different products covers the many high demands such as: high tolerance adapting, high green strength, durability especially when used in combination with under floor heating, flexibility and a very wide range of applications.



The polyurethane systems are free of water and formaldehyde and deformation of the products are therefore avoided. Emissions after completion of the PUR cross linking do not occur.

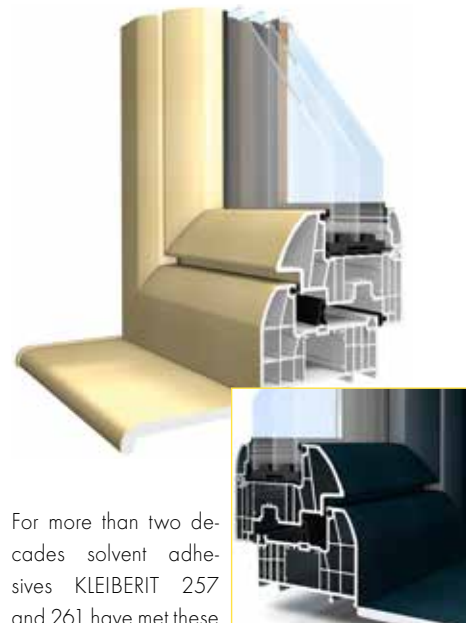
The products can be used on continuous or static application machinery.

A wide variety of products are available for use on all manufacturing processes and conform to all industry standards.

Profile Wrapping Exterior

PVC windows for internal as well as external use have been wrapped with decorative PVC foils for the past 20 years. The standard required of the adhesives was then, and is now, very high.

High temperature, humidity and ageing resistance, as well as a high green strength for the inline production are just some of these requirements.



For more than two decades solvent adhesives **KLEIBERIT 257** and **261** have met these requirements.

As an alternative to solvent based adhesives **KLEIBERIT** introduced in 1990 solvent free reactive polyurethane hotmelts. The product range **KLEIBERIT PUR HM 704** has set industry standards with regards to weather resistance and application technology. **KLEIBERIT PUR 704** is suitable for bonding of nearly all plastics and aluminium.

KLEIBERIT continues to be the innovative leaders in PUR hotmelts with regards to green strength, application viscosity, and bond strength development.

Profile Wrapping Interior

The requirements of the furniture industry and the interior millwork industry have risen dramatically and therefore the demands to the adhesive have also changed considerably. Fast application, difficult profiles, temperature and moisture resistance are factors which have to be considered when choosing an adhesive system.

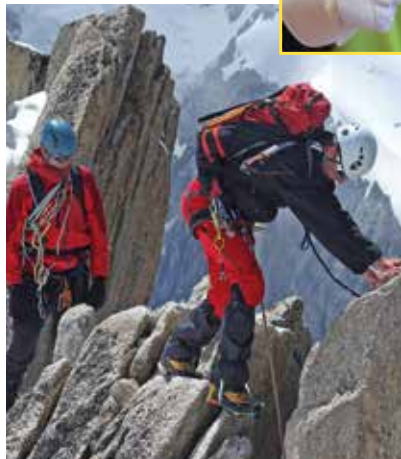


KLEIBERIT EVA hotmelt 743 and PO hotmelt 750 are based on thermo-plastics polymers which cure only physically.

Reactive PUR hotmelts 702 offer additional advantages of higher heat and moisture resistance due to the chemical cross linking. They distinguish themselves with a high green strength and universal bond properties even to metals and plastics. Due to the relatively low application temperature, even sensitive materials such as PVC foils can be bonded.

Textile Industry

Reactive polyurethane hotmelts make it possible to laminate nearly all textile substrates. The adhesives are usually applied with engraved rollers or with spinning nozzles. The coat weights range from 5 to 50g/m². After cross linking, the adhesive provides a high quality bond which is not only soft on the material but is also boil resistant.



This covers medical applications which require sterilization.

Special potential also provides for the substitution of flame lamination. Leading automotive manufactures are beginning to refuse to use flame laminated products for interior use due to the high particulate emissions during the laminating process. The polyurethane hotmelts distinguish themselves through their excellent fogging properties and will gain strong significance in the future for these type of applications.

Selected PUR Hotmelts

KLEIBERIT Products		Viscosity [mPas]		Open time 120°C [s]	Application methods	Bond properties
		120°C	140°C			
Profile Wrapping exterior use	704.0	27,000	15,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength very elastic tested according to RAL GZ 716
	704.1	25,000	16,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very fast tough/elastic glue joint high green strength
	704.2	23,000	12,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength very elastic very good bond strength
	704.3	33,000	17,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> high green strength very fast curing very high weathering resistance certified according to RAL GZ 716
	704.4	30,000	15,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength wide application window tested according to RAL GZ 716
	704.5	33,000	17,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength very fast curing very high weathering resistance certified according to RAL GZ 716
	704.6	80,000	40,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength very fast curing very high weathering resistance certified according to RAL GZ 716
	708.0	28,000	14,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> high green strength fast strength build-up heat reflecting
	708.1	14,000	7,000	approx. 15	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very low application temperature very high green strength distinctively tacky tested according to RAL GZ 716
Profile Wrapping interior use	702.0.30	30,000	15,000	approx. 60	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength fast strength build-up
	702.1	12,000	70,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength as well as pronounced stickiness diverse applications suitable for high line speeds
	702.4	30,000	17,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very fast curing suitable for high line speeds
	702.5	60,000	35,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> high green strength very tacky good adhesives to wood and alu suitable for high line speeds
	702.7	100,000	60,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> high green strength fast strength build-up
	702.8.08	60,000	35,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> high green strength fast strength build-up
	702.9	180,000	100,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> high green strength
	707.2	40,000	19,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength diverse applications
	707.0	60,000	30,000	approx. 10	<ul style="list-style-type: none"> slot nozzle roller doctor blade 	<ul style="list-style-type: none"> very high green strength distinctively tacky

Field of application
<ul style="list-style-type: none"> • PVC/PVC-window profile wrapping • wrapping of aluminium and plastic profiles with thermo plastic foils and veneers
<ul style="list-style-type: none"> • wrapping of wood and wood based materials with veneer, paper and plastic foils and other laminates • wrapping of casings • special sealing processes
<ul style="list-style-type: none"> • PVC/PVC-window profile wrapping • wrapping of aluminium and plastic profiles with thermo plastic foils and veneers
<ul style="list-style-type: none"> • wrapping of PVC and aluminium profiles with PVC window profile foil, paper and veneer • wrapping of wood based materials with fleece backed veneer
<ul style="list-style-type: none"> • PVC/PVC-window profile wrapping • wrapping of aluminium and plastic profiles with thermo plastic foils and veneers • 2-layer parquet manufacturing • RENOLIT FX-foil (primered and unprimered) /PVC-window profile wrapping
<ul style="list-style-type: none"> • wrapping of PVC and aluminium profiles with PVC window profile foil, paper and veneer • wrapping of wood based materials with fleece backed veneer
<ul style="list-style-type: none"> • wrapping of PVC profiles with PVC foils
<ul style="list-style-type: none"> • wrapping of PVC profiles with PVC foils
<ul style="list-style-type: none"> • wrapping of thermo plastic foils and papers to plastic and aluminium profiles • wrapping at low temperatures
<ul style="list-style-type: none"> • wrapping of wood based material profiles • especially suited for the CompleteLine process
<ul style="list-style-type: none"> • edge banding of all commonly used edging materials • wrapping CPL, thick paper, paper to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles
<ul style="list-style-type: none"> • wrapping of PVC profiles with PVC foils
<ul style="list-style-type: none"> • edge banding of all commonly used edging materials • wrapping CPL, thin paper, paper to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles
<ul style="list-style-type: none"> • edge banding of all commonly used edging materials • wrapping CPL, thick paper, paper to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles
<ul style="list-style-type: none"> • wrapping of wood based material profiles with PVC foils, CPL and veneer
<ul style="list-style-type: none"> • edge banding of all commonly used edging materials • wrapping CPL, thick paper, paper to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles
<ul style="list-style-type: none"> • wrapping CPL, thick paper, paper to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles • fleece backing
<ul style="list-style-type: none"> • wrapping CPL, thick paper, paper to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles • fleece backing, multi layer veneer

Selected PUR Hotmelts

KLEIBERIT Products	Viscosity [mPas]		Open time at 120 °C [min]	Application methods	Advantages	
	120 °C	140 °C				
Flat Lamination	706.0	16,000	13,000	approx. 2	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • for automated processes
	706.1	12,000	6,000	approx. 3	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • for partially automated and manual processes
	706.7	20,000	9,000	approx. 5	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • middle open time • very high initial strength, especially for HPL with very high memory effect
	709.3	8,000	4,000	approx. 4	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • middle open time • very clean application
	711.0.02	10,000	6,000	approx. 0.5	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • for automated processes
	711.2	10,000	5,000	approx. 3	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • for partially automated and manual processes
	711.3	12,000	6,000	approx. 3	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • for partially automated and manual processes
	711.5	16,000	8,000	approx. 3	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • for partially automated and manual processes
	711.9	16,000 at 140°C	8,000 at 160°C	approx. 3	<ul style="list-style-type: none"> • slot nozzle • roller • doctor blade 	<ul style="list-style-type: none"> • short open time • very high initial strength, especially for HPL with very high memory effect
Textile Lamination	701.0	8,000 at 100°C	3,000 at 120°C	long	<ul style="list-style-type: none"> • slot nozzle • gravure roller 	<ul style="list-style-type: none"> • universal product with wide range of adhesion • high initial strength
	701.4	5,000 at 100°C	3,000 at 120°C	long	<ul style="list-style-type: none"> • slot nozzle • spray application • rotary screen • gravure roller 	<ul style="list-style-type: none"> • very good hydrolysis and sterilization resistance • very good washing resistance • PTFE membranes
	701.6	3,500 at 100°C	1,500 at 120°C	long	<ul style="list-style-type: none"> • slot nozzle • gravure roller 	<ul style="list-style-type: none"> • high initial strength • good universal product • ePTFE membranes
	701.9	16,000	8,000	short	<ul style="list-style-type: none"> • slot nozzle • spray application • gravure roller 	<ul style="list-style-type: none"> • very high initial strength • very good washing resistance • suitable for heavy textiles
Hot Coating	HC 717	20,000	10,000		<ul style="list-style-type: none"> • roller 	<ul style="list-style-type: none"> • none fading • high wear, shock and chemical resistance

Field of application
<ul style="list-style-type: none"> • sandwich panels • flat lamination • high gloss material
<ul style="list-style-type: none"> • sandwich panels • flat lamination • high gloss material
<ul style="list-style-type: none"> • sandwich panels • flat lamination
<ul style="list-style-type: none"> • flat lamination of thin high gloss foils
<ul style="list-style-type: none"> • flat lamination of thin high gloss foils • flat lamination of transparent foils
<ul style="list-style-type: none"> • flat lamination of plastic films on panels which are not pre-treated
<ul style="list-style-type: none"> • flat lamination of impermeable materials, like films, on e.g. pre-treated panels
<ul style="list-style-type: none"> • flat lamination of plastic films on panels which are not pre-treated
<ul style="list-style-type: none"> • sandwich panels • flat lamination
<ul style="list-style-type: none"> • automotive industry: decorative headliners, door panels, seating, hat rests, abrasion resistant and breathable multi-layered textile complexes for car seats • leisure and sports industry: breathable wind- and waterproof materials, light-weight and durable material combinations • medical-wear/operation room technology: surgical face masks, -gowns, -drapes, protective mattress covers, incontinent articles, anti-allergy systems • civil engineering: protective suits for fire brigade, police and army clothing • home textiles: textile laminates for upholstery, black-out curtains, awnings • lingerie/swim: wear, bra, underwear, bikini
<ul style="list-style-type: none"> • surface enhancement / sealing for parquet, veneer and wood based materials

Selected PUR Hotmelts

KLEIBERIT Products		Viscosity [mPas]		Open time at 120°C [s]	Application methods	Bond properties
		120°C	140°C			
2-Layer-Parquet	700.5	6,000	3,000	approx. 180	<ul style="list-style-type: none"> spray application roller slot nozzle 	<ul style="list-style-type: none"> very high green strength distinctively tacky
	705.4	30,000	15,000	approx. 60	<ul style="list-style-type: none"> slot nozzle roller doctor blade nozzle 	<ul style="list-style-type: none"> high green strength very flexible glue joint high age resistance
	705.5	18,000	9,000	approx. 40	<ul style="list-style-type: none"> slot nozzle roller doctor blade nozzle 	<ul style="list-style-type: none"> high green strength very flexible glue joint high age resistance
	705.6	30,000	15,000	approx. 30	<ul style="list-style-type: none"> slot nozzle roller doctor blade nozzle 	<ul style="list-style-type: none"> very high green strength very good age resistance no stringing ideal for robot application
	707.4	18,000	10,000	approx. 60	<ul style="list-style-type: none"> slot nozzle roller doctor blade nozzle 	<ul style="list-style-type: none"> low viscosity very high green strength distinctively tacky
	707.8	30,000	24,000	approx. 65	<ul style="list-style-type: none"> slot nozzle roller doctor blade nozzle 	<ul style="list-style-type: none"> very low application temp. from 120°C very high green strength fluorescent
Edge Banding	707.6	110,000	60,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller 	<ul style="list-style-type: none"> very clean application very fast strength build-up
	707.7	100,000	60,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller 	<ul style="list-style-type: none"> especially developed for HolzHer very high green strength for high memory
	707.9	160,000	80,000	approx. 5	<ul style="list-style-type: none"> slot nozzle roller 	<ul style="list-style-type: none"> high green strength very tacky good adhesives to wood and alu
Assembly/Automotive	703.2	48,000	23,000		<ul style="list-style-type: none"> slot nozzle nozzle spray application 	<ul style="list-style-type: none"> no stringing no contamination of the robot equipment very good hold on slanting surfaces
	703.3	30,000	15,000	approx. 30 2 mm bead	<ul style="list-style-type: none"> slot nozzle nozzle spray application 	<ul style="list-style-type: none"> very high green strength sprayable
	703.5	11,000	6,000	30 2 mm bead	<ul style="list-style-type: none"> cartridge gun nozzle and slot nozzle applicator systems spray application roller 	<ul style="list-style-type: none"> good all a round product fast gripping no stringing high green strength ideal for robot application
	703.6	25,000	15,000	30 2 mm bead	<ul style="list-style-type: none"> nozzle and slot nozzle applicator systems roller 	<ul style="list-style-type: none"> fast gripping good hold on slanting surfaces no stringing
	703.8	48,000	23,000		<ul style="list-style-type: none"> cartridge gun nozzle and slot nozzle applicator systems spray application roller 	<ul style="list-style-type: none"> no stringing no contamination of robot equipment very good hold on slanting surfaces ideal for robot application
	713.4	60,000	35,000	approx. 30	<ul style="list-style-type: none"> slot nozzle roller 	<ul style="list-style-type: none"> low emission and low odour very good reactivation
	713.7.03	100,000	60,000	approx. 25	<ul style="list-style-type: none"> slot nozzle roller 	<ul style="list-style-type: none"> monomer reduced high initial tack, low cycle time

Field of application
<ul style="list-style-type: none"> • 2-layer parquet production using static press method
<ul style="list-style-type: none"> • 2-layer parquet inline production
<ul style="list-style-type: none"> • 2-layer parquet inline production
<ul style="list-style-type: none"> • 2-layer inline parquet inline production • high performance assembly bonding • good bond to a variety of materials
<ul style="list-style-type: none"> • 2-layer parquet production
<ul style="list-style-type: none"> • 2-layer parquet production
<ul style="list-style-type: none"> • edge banding with all commonly used material
<ul style="list-style-type: none"> • edge banding for all commonly used materials such as: PVC, ABS, PP, acrylic, veneer, paper, melamine
<ul style="list-style-type: none"> • edge banding of all commonly used edging materials • wrapping CPL, thick and thin papers to wood based material profiles • veneer wrapping of aluminium, wood and plastic profiles, multi layer veneer
<ul style="list-style-type: none"> • production of door panels and retainer clips • high performance assembly bonding • laminating of materials, carpets or PVC foils to substrates such are wood based materials or plastics
<ul style="list-style-type: none"> • production of door panels and retainer clips • high performance assembly bonding • laminating of materials, carpets or PVC foils to substrates such are wood based materials or plastics
<ul style="list-style-type: none"> • production of door panels and retainer clips • high performance assembly bonding • good bond to wood (wood fibre board) aluminium, and a variety of plastics such as ABS etc.
<ul style="list-style-type: none"> • production of door panels and retainer clips • high performance assembly bonding • laminating of materials, carpets or PVC foils to substrates such are wood based materials or plastics
<ul style="list-style-type: none"> • production of door panels and retainer clips • high performance assembly bonding • laminating of materials, carpets or PVC foils to substrates such are wood based materials or plastics
<ul style="list-style-type: none"> • laminating of fabric/carpet onto carrier components of wood based materials or plastics e.g. door panels, roof linings or trunk base plates and for bonding natural fibre materials • laminating for interior finishing motor vehicles
<ul style="list-style-type: none"> • laminating of fabric/carpet onto carrier components of wood based materials or plastics e.g. door panels, roof linings or trunk base plates and for bonding natural fibre materials • laminating for interior finishing motor vehicles

Primer

Primer	Product	Density [g/cm ³]	Viscosity [mPa·s]	Solvents according to Hazardous Material Regulation	RAL approval	Flammable	Identification	Application method
	831.0	1.33	20	methylene chloride	GZ 716	no	GHS07 / GHS08	primer felt pad
	831.2	1.27	10	solvent mixture	GZ 716	no	GHS07 / GHS08	primer felt pad
	831.4	0.85	30	solvent mixture	-	yes	GHS02 / GHS07 / GHS08	primer felt pad
	831.6	1.3	20	methylene chloride	-	no	GHS07 / GHS08	primer felt pad
	831.7	1.33	10	methylene chloride	-	no	GHS07 / GHS08	primer felt pad
	831.8	1.33	15	methylene chloride	-	no	GHS07 / GHS08	primer felt pad
	840.3	1.04	15	omitted	GZ 716	no	not required	primer felt pad and vacuum technology
	840.4	1.05	20	solvent mixture	GZ 716	no	GHS05 / GHS08	primer felt pad and vacuum technology
	840.5	1.05	10	solvent mixture	GZ 716	no	GHS05 / GHS08	primer felt pad and vacuum technology
	840.6	1.05	20	solvent mixture	GZ 716	no	GHS05 / GHS08	primer felt pad and vacuum technology
	840.7	1.06	15±5	solvent mixture	GZ 716	no	GHS08	primer felt pad and vacuum technology
	840.8	1.05	15	solvent mixture	GZ 716	no	GHS05 / GHS07	primer felt pad
	842.0	1.06	15	solvent mixture	GZ 716	no	GHS05 / GHS09	primer felt pad and vacuum technology
	842.1	1.05	20	solvent mixture	GZ 716	no	GHS07	primer felt pad and vacuum technology
	842.3	1.03	20	solvent mixture	GZ 716	no	not required	primer felt pad and vacuum technology
848.1	0.82	10	solvent mixture	GZ 716	yes	GHS02 / GHS07	primer felt pad	

Primer

To achieve an optimal bond some materials such as PVC or aluminium have to be pre-treated. Primer can either be sprayed on, or is applied via felt pads. This pre-treatment conditions the surfaces for an optimal bond.

Applications	Characteristics
Fluorescent primer for wrapping PVC and aluminum profiles	Wide processing window, fast evaporation
Fluorescent primer for wrapping PVC profiles	Wide processing window, more aggressive version of 831.0, fast evaporation
Fluorescent primer for PMMA profile wrapping and for pretreating acrylate foils	Fast evaporation
Fluorescent primer for wrapping PVC profiles	Fast evaporation
Fluorescent primer for wrapping PVC and aluminum profiles	Fast evaporation
Fluorescent primer for wrapping PVC profiles	Wide processing window, more aggressive version of 831.2 for different PVC profile recipes, fast evaporation
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, water based
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC < 2 %, without the addition of NEP
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
Fluorescent primer for wrapping PVC profiles	Fast evaporation

Cleaner

KLEIBERIT Products	Viscosity [mPas]		Specific weigh [g/cm ³]	Colour	Cleaning properties Advantages	Fields of application	
	120 °C	140 °C					
Reiniger	761.0	110,000	55,000	0.98	brown	<ul style="list-style-type: none"> avoiding of blockages and reactive contamination good mixing properties with PUR HMs 	<ul style="list-style-type: none"> cleaning of melting and applicator equipment when changing over from one PUR to another especially for HolzHer machines
	761.4	20,000	11,000	1.1	blue	<ul style="list-style-type: none"> avoiding of blockages and reactive contamination good mixing properties with PUR HMs neutralising the isocyanate reaction 	<ul style="list-style-type: none"> cleaning of melting and applicator equipment when changing over from one PUR to another
	761.5	-	-	ca. 1.15	white	<ul style="list-style-type: none"> neutralising the isocyanate reaction 	<ul style="list-style-type: none"> special cleaner for application rollers on flat lamination and HotCoating lines
	761.6	10,000	5,000	0.98	blue	<ul style="list-style-type: none"> avoiding of blockages and reactive contamination good mixing properties with PUR HMs neutralising the isocyanate reaction intensive cleaner, also cleans cracked PUR hotmelt 	<ul style="list-style-type: none"> cleaning of melting and applicator equipment when changing over from one reactive PUR to another
	761.7	11,000	6,000	0.98	blue	<ul style="list-style-type: none"> avoiding of blockages and reactive contamination good mixing properties with PUR HMs neutralising the isocyanate reaction 	<ul style="list-style-type: none"> cleaning of melting and applicator equipment when changing over from one PUR to another
	761.8	-	-	1.14	white	<ul style="list-style-type: none"> neutralising the isocyanate reaction 	<ul style="list-style-type: none"> special cleaner for application rollers on flat lamination and HotCoating lines
	822.5	-	-	approx. 0.990	clear liquid	<ul style="list-style-type: none"> cleaner softens cured PUR adhesive 	<ul style="list-style-type: none"> cleaning of melting and applicator equipment when changing over from one PUR to another
	823.3	-	-	approx. 0.840	clear, transparent to light yellow liquid	<ul style="list-style-type: none"> removal of hardened and cured PUR adhesive residue on machine parts, tools, devices, etc. at room temp. 	<ul style="list-style-type: none"> cold cleaner for cleaning the surfaces of machine parts and tools
	826.0	-	-	-	clear, "oily" liquid	<ul style="list-style-type: none"> very high flame point 	<ul style="list-style-type: none"> cleaning of mixing heads used for the mechanical application of PUR cleaning of PUR hotmelt vessels
	827.0	-	-	-	clear, "oily" liquid	<ul style="list-style-type: none"> very high flame point 	<ul style="list-style-type: none"> cleaning of hotmelt vessels

Aluminium can
260 g net
Height: 90 mm
Ø (id): 63 mm



Cartridge
300 g net
Height: 215 mm
Ø (od): 47 mm



Stand-up pouch*
400 g net
Height: 200 mm
LxW filled: 100 x 50 mm



Metal can
2 kg net
Height: 197 mm
Ø (od): 125 mm



Pouch pack aluminium*
2 kg net
Height: 185 mm
Ø (id): 125 mm



Pouch pack aluminium*
20 kg net
Height: 410 mm
Ø (id): 280 mm



Cleaner

Depending on the application system, the melting and application units are drained off and cleaned accordingly after finishing work with PUR hotmelt adhesives. Various easy to handle **KLEIBERIT** cleaners assist in the cleaning of all systems and machine parts.

Metal pail
20 kg net
Height: 410 mm
Ø (id): 280 mm



Steel barrel
200 kg net
Height: 885 mm
Ø (id): 571,5 mm



To avoid reactions during storage **KLEIBERIT** polyurethane hotmelts are filled into air tight packaging. Suitable packaging formats to cover most of application equipment are available.

* The diameter of the portion bag and aluminium pouch bag can vary slightly depending on the product.

Machine manufacturers

Wrapping Machine Manufacturers

Barberan S.A.

Pol. Ind. "Cami Ral" C/Galileo 3-9
E-Castelldefels
www.barberan.org

Düspohl Maschinenbau GmbH

An der Heller 43
D-33758 Schloß Holte - Stukenbrock
www.duespohl.com

Friz Kaschieretechnik GmbH

Im Holderbusch 7
D-74189 Weinsberg
www.friz.de

Fux Maschinenbau GmbH

A-4575 Roßleithen 72
www.fux.at

GLUETECHNIKA

ul. Składowa 7
PL-24-100 Puławy
www.gluetechnika.pl

HSM Maschinenteknik GmbH & CO.

Dornenbreite 9
D-32549 Bad Oeyenhausen
www.hsm-maschinen.com

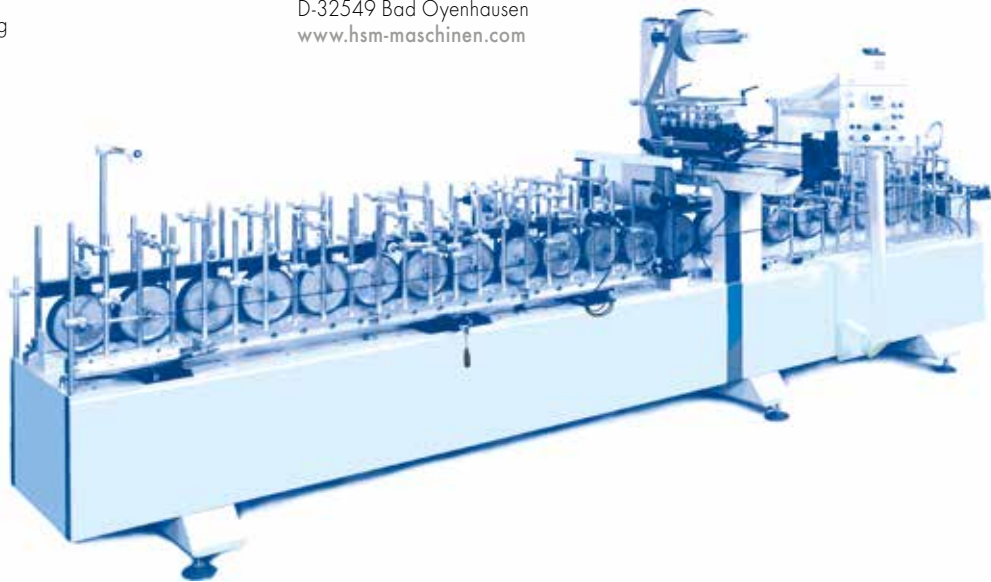
L&L Maschinenbau GmbH

Adam-Opel-Strasse 9
D-33428 Harsewinkel
www.L-Maschinen.de

Steins

Ummantelungsmaschinenteknik GMB

Trefffurter Weg 9
D-99974 Mühlhausen
www.steins-profilkaschierung.de



Application and Premelt Equipment Manufacturers

Balti AG

Altgasse 82
CH-6340 Baar
www.balti.ch

Düspohl Maschinenbau GmbH

An der Heller 43
D-33758 Schloß Holte - Stukenbrock
www.duespohl.com

Elektrobau Wehrmann GmbH

Große Drakenburger Strasse 52
D-31582 Nienburg
www.wehrmann-klebeteknik.de

GLUETECHNIKA

ul. Składowa 7
PL-24-100 Puławy
www.gluetechnika.pl

HHS Leimauftragssysteme GmbH

Meisenweg 8
D-86573 Zahling
www.hhs-systems.de

HS Klebtec GmbH

Zum Brauteich 20
D-07613 Heideiland
www.hs-klebsysteme.de

Inatec GmbH

Schneiderstr. 73
D-40764 Langenfeld
www.inatec-gmbh.de

Nordson Deutschland GmbH

Lilienthalstr.6
D-21337 Lüneburg
www.nordson.de

Nordson Spanien

Ctra. De Torrente, 225
E-46950 Xirivella-Valencia

Nordson Italien

Via dei gigli, 3/B
I-20090 Pieve Emanuele-Milano

Reka GmbH & Co. KG

Siemensstrasse 6
D-76344 Eggenstein- Leopoldshafen
www.reka-klebeteknik.de

Robatech AG

Weyermühlestr. 19
CH-5639 Muri
www.robatech.ch

Robatech GmbH

Im Gründchen 2
D-65520 Bad Camberg
www.robatech.de

SM-Klebeteknik GmbH & Co. KG

Otto-Hahn-Str. 19a
D-52525 Heinsberg
www.sm-klebeteknik.de

Tecnoicollaggi

via Borsellino Zona industriale N5
www.tecnoicollaggi.com

Flat Lamination Machine Manufacturers

Barberan S.A.

Pol. Ind. "Cami Ral"/C/Galileo 3-9
E-Castelldefels
www.barberan.org

Black Bros. Co.

501 Ninth Avenue
USA-Mendota, Illinois 61342
www.blackbros.com

Robert Bürkle GmbH

Stuttgarter Str. 123
D-72250 Freudenstadt
www.buerkle-gmbh.de

Friz Kaschiertechnik GmbH

Im Holderbusch 7
D-74189 Weinsberg
www.friz.de

GLUETECHNIKA

ul. Składowa 7
PL-24-100 Putawy
www.glueteknika.pl

Hardo Maschinenbau GmbH

Grüner Sand 78
D-32107 Bad Salzuflen
www.hardo-gmbh.de

Hymmen GmbH

Theodor-Hymmen-Strasse 3
D-33613 Bielefeld
www.hymmen.com

Omma

Via Dell'Artigianato 13/11
I-20051 Limbiate
www.omma.com

OSAMA Technologies srl

Via della Pergola, 11
I-53037 San Gimignano SI
www.osama-tech.it

Union Tool Co.

1144 N. Detroit St. (St. Road 15 North)
USA - Warsaw, Indiana 46580
www.uniontoolcorp.com

Edge Banding Machine Manufacturers

Biesse S.p.A.

Via della Meccanica, 16
I-61100 Pesaro (PU)
www.biesse.de

Heinrich Brandt Maschinenbau GmbH

Weststrasse 2
D-32657 Lemgo
www.brandt.de

HOLZ-HER GmbH

Plochingen Strasse 65
D-72622 Nürtingen
www.holzher.com

Homag Maschinenbau GmbH

Homagstrasse 3-5
D-72296 Schopfloch
www.homag.de

IMA-Norte Maschinenfabriken

Klessmann GmbH
Industriestrasse 3
D-32292 Lübbecke
www.ima.de

SCM Group S.p.A.

Via Casale, 450
I- 47827 Villa Verucchio (RN)
www.scmgroup.cpm



KLEIBERIT® Adhesives worldwide

KLEIBERIT Adhesives (Head Office)

KLEBCHEMIE M. G. Becker GmbH & Co. KG
Weingarten/Germany

KLEIBERIT Adhesives UK

Coalville, Leicestershire, UK

KLEIBERIT Chimie S.a.r.l.

Reichstett, France

KLEIBERIT Adhesives USA Inc.

Waxhaw, North Carolina, USA

KLEIBERIT Adhesives of Canada Inc.

Toronto, Ontario, Canada

KLEIBERIT AUSTRALIA Pty Ltd.

Sydney, Australia

KLEIBERIT Russia

Moscow, Russia

KLEIBERIT Adhesives Japan

Osaka, Japan

KLEIBERIT Adhesives Beijing Co., Ltd.

Beijing, China

KLEIBERIT Adhesives Asia Pte. Ltd.

Singapore, Singapore

KLEIBERIT Adhesives India Private Ltd.

Bangalore, India

KLEIBERIT Kimya San. ve Tic. A.Ş.

Istanbul, Turkey

KLEIBERIT Bel

Minsk, Belarus

KLEIBERIT-UKRAINE LLC.

Kiev, Ukraine

KLEIBERIT do Brasil Comércio de Adesivos e Vernizes Ltda.

Curitiba, Brasil

KLEIBERIT Adhesives México S.A. de C.V.

Mexico City, Mexico

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