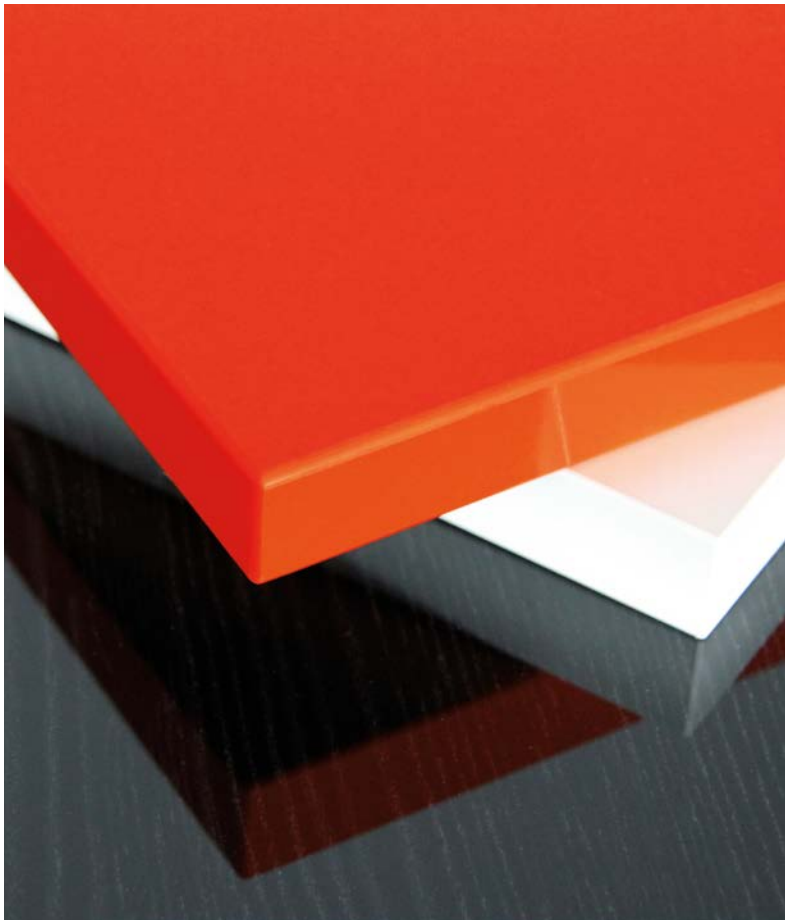
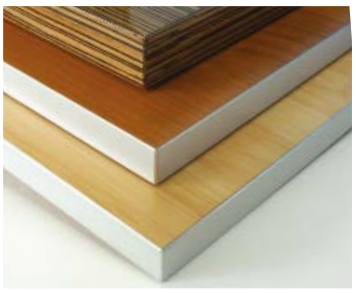
KLEIBERIT®
ADHESIVES • COATINGS



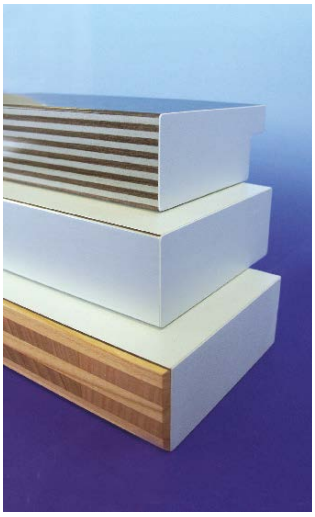


Edgebanding

Competence PUR

KLEIBERIT®
ADHESIVES • COATINGS

The best components for success today and in the future



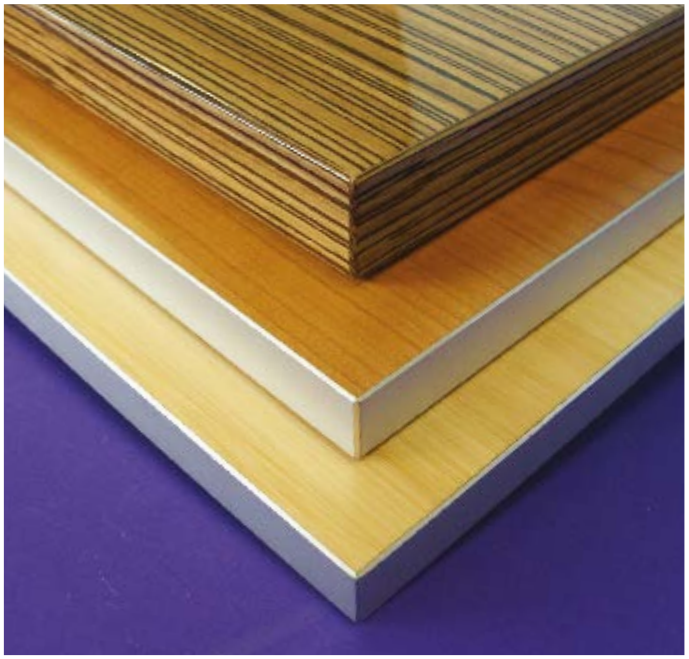
In furniture production, modern edge banding machines carry special importance. **KLEIBERIT's** comprehensive product program reliably covers requirements ranging from hand-fed via CNC technology to soft forming and high-speed edge applications.

The adhesive specialists **for all types of edges**

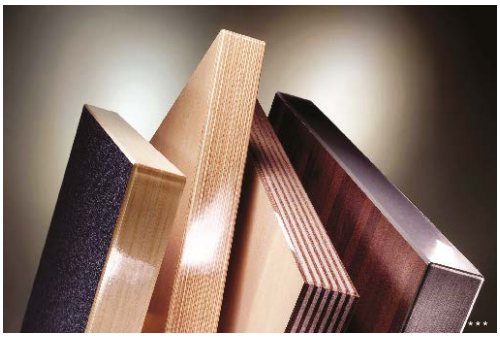
KLEIBERIT SE & Co. KG
Max-Becker-Str. 4
76356 Weingarten/Germany
Phone: +49 7244 62-0
Fax: +49 7244 700-0
Email: info@kleiberit.com
www.kleiberit.com

Classification

Different adhesives are used depending on the intended purpose of the finished components.



Numerous new substrates, edging materials and manufacturing technologies put several requirements on the applied adhesive.



PUR Hotmelt
- Very high cold and heat resistance
- Very high moisture resistance
- Kitchen and bathroom furniture, difficult edge material

Polyolefin Hotmelt
- Very high heat resistance
- Good moisture resistance
- Furniture exposed to high temperature

EVA Hotmelt
- Good heat and cold and resistance
- Good moisture resistance
- Interior furniture exposed to normal temperature

KLEIBERIT®
ADHESIVES • COATINGS

Products and
their applications

PUR Hotmelts

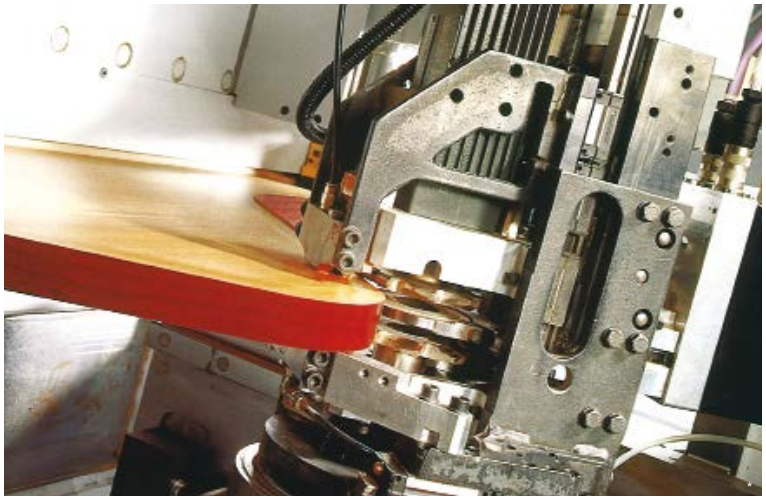
In the premium grade of architectural woodwork, the increased requirements of higher heat and moisture resistance are particularly fulfilled through PUR Hotmelts. Aluminum edges are also reliably bonded.

Reactive polyurethane Hotmelts are increasingly entering more application areas in modern furniture construction. In addition to widely spread PUR surface laminations, edging machines are increasingly equipped with PUR Hotmelt equipment.

While the thermoplastic adhesives of EVA (ethylenvinylacetat) and PO (polyolefin) reach their strength through the cooling down of the melted material, the reactive PUR has a chemical cross linking in addition to the physical setting of the material.

Due to this 3 dimensional cross linking of the PUR, the characteristic of higher temperature and moisture resistance, which is significant to the PUR Hotmelt, is achieved. The big advantage is a bond to nearly all common edge types and materials.

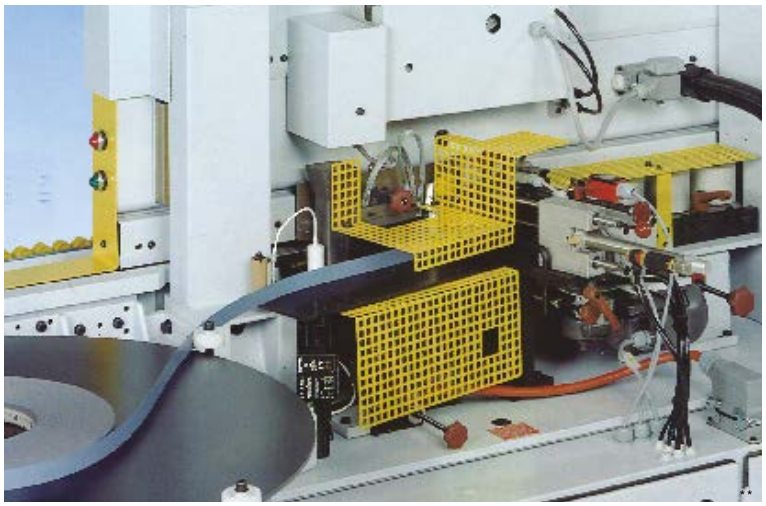
With products from the **702** and **707** series for roller coater and slot nozzle application, the user has an optimal selection of high performance adhesive systems which can also be reliably used for tight radiuses on CNC or soft-forming. The range is completed with **707.6** and **707.9** which are also offered in Holz-Her cartridges and portion bags.

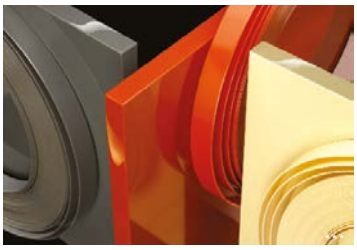


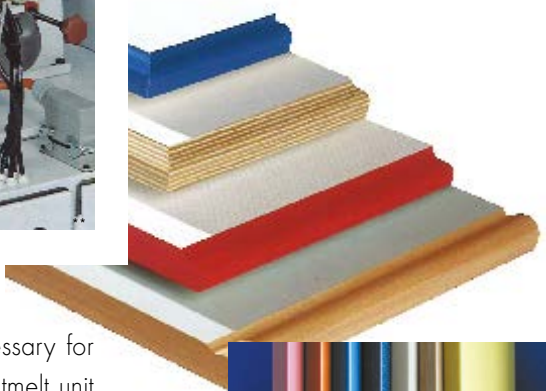
PUR Hotmelts

A good, string-free application process, high initial strength and clean machine finishing are trademarks of **KLEIBERIT's** PUR Hotmelts for edging.

Hotmelt adhesives for edges and soft forming have a medium to high viscosity in the melter to fill in the pores of the intermediate layer of particle boards thus achieving a high and homogenous bond strength.







The operating temperatures for PUR Hotmelt lie, depending on the PUR type, between 120°C and 160°C (248°F and 320°F). Because PUR Hotmelts react with air moisture, the application device should be cleaned after use or stored in a nitrogen pressure tank.

A protective gas is necessary for pre-melt devices. The Hotmelt unit can be cleaned with **KLEIBERIT cleaner 761.6** and **761.7**. For thorough cleaning, the **cleaner 826.0** is available.

KLEIBERIT® ADHESIVES • COATINGS

Cleaning

PUR Hotmelts

Polyurethane Hotmelts react with the moisture in the air and material. Through permanent heat exposure in continuous processing, PUR can develop solid material on the inner sides of the melting unit. To minimize this risk, it's advisable to lower the temperature during long machine standstills. Cleaning the device after long working breaks and standstills is necessary. The PUR Hotmelt is neutralized and purged with the cleaner **761.6** and **761.7** (blue melt material).
If solid material should appear, then the unit should be boiled in cleaner **826.0** at a minimum temperature of 180°C (356°F). The exact working procedures can be viewed in the brochure of instructions for cleaning pre-melt units.

Packaging Sizes

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

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

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

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

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

KLEIBERIT®
ADHESIVES • COATINGS

Products and
their applications

PO
EVA

Hotmelt adhesives for edges and soft forming have a medium to high viscosity in the melter to fill in the pores of the intermediate layer of particle boards thus achieving a high and homogenous bond strength.

A fast setting of the adhesive in the pressure area is essential for a clean finishing/moulding of the edge.

The initial strength of a Hotmelt must be especially high for soft forming processes so that the re-set strength of the edging material does not result in an opening of the glue line.

The edging Hotmelts show good flowing characteristics and do not form clumps in the melter.
Edging Hotmelts are melted in a granulate pre-melter, which is typically located directly over the application unit. The pre melted adhesive then runs, directed by the level sensor, as a thread in to the heated application basin. The application takes place either with an application roller or with a slot/sword nozzle.
On straight edges, the adhesive is typically applied to the work substrate. In the soft forming process, the adhesive is commonly applied to the edge material.

Fields of Application

Bonding of

- DKS Edges
- Synthetic Resin Edges
- ABS Edges
- Solid Wood Edges
- Polyester Edges
- PVC Edges
- Veneer Edges

In the area of small surface coatings, the tendency of the furniture industry points to increased requirements on adhesives concerning forms, materials, faster processing and higher temperature resistance.

KLEIBERIT® ADHESIVES • COATINGS

Application

PO
EVA

A good, string-free application, high initial strength, and clean finishing are characteristics of KLEIBERIT's PUR Hotmelts for edging.

Application

- The carrier substrate must be right angled and be free of dust
- Panels and edging material must be acclimatized to room temperature
- Ideal wood moisture 8-10%, room temperature at least 18°C, avoid drafts
- Working temperature 160-220°C (320°F-428°F) (thermostat display)
- Temperature control is espe cially important for the bonding of DKS and solid wood edges.
- Work in the upper tempera ture range for long and hard work pieces
- Lower temperatures reduce the wetting of the edge
- Coat weight and contact pressure must be adjusted so that applied beads are levelled out and leaves a slight squeeze-out. The application (wetting out on the edge) is best controlled with a transparent test edge.

KLEIBERIT®
ADHESIVES • COATINGS

Cleaning

PO
EVA

EVA and PO Hotmelts do not react with air and material moisture. However, through permanent heat exposure in continuous processing, solid material can develop on the inner sides of the melting unit.To keep this effect to a minimum, it is recommended to bring the equipment to a lower temperature during long standstills.

For typical long working breaks, or at night, the equipment should be turned off. It is not necessary to clean the equipment for long work breaks or standstills.

If solid material develops, the application unit should be cleaned from time to time with **cleaner 827.0** at 200-250 °C (392-482 °F). After a couple of hours, the cleaner separates the Hotmelt and it can be effortlessly removed.

KLEIBERIT® ADHESIVES • COATINGS

Cleaning

	KLEIBERIT Products	Viscosity [mPas] at 120°C	Viscosity [mPas] at 140°C	Density [g/cm3]	Colour/ Delivery Form	Characteristics/Advantages	Fields of Application
Cleaner	**761.6**	5,000 -10,000		0.98	blue/ granulate	• Combines the function of a flushing cleaner such as KLEIBERIT 761.7 and the intensive cleaner KLEIBERIT 826.0 in just one product! • Removes non cross-linked, cross-linked, and cracked PUR Hotmelt from the complete processing unit. • Can even break up blockage in hoses, thus avoiding costly replacements. • Excellent for regular care and preventative maintenance of processing units	• Cleaning of tank and drum melters, gear pumps and transport hoses, and metal application units (e.g. slot nozzle, roller).
	761.7	11,000	6,000	0.98	blue/ granulate	• Avoidance of blocking and reactive contamination • Good mixing properties with PUR HM • Neutralises the isocyanate reaction	• Cleaning of melting and applicator equipment when changing over from one PUR to another
	826.0	-	-	-	clear/ liquid	• "Oily" liquid with a very high flame point • **Only for machine parts and melting baths**	• To clean mixing heads used for the mechanical application of PUR adhesives • To clean PUR hotmelt vessels
	827.0	-	-	-	clear/ liquid	• "Oily" liquid with a very high flame point	• To clean PUR hotmelt vessels

Packaging Sizes

PE-bag or paper bag
20 kg or 25 kg

Big Bag
up to 750 kg net

Cardboard Box
up to 500 kg

KLEIBERIT®
ADHESIVES • COATINGS

Partners of **KLEIBERIT**

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

Brandt Kantentechnik GmbH
Weststraße 2
D-32657 Lemgo
www.brandt.de

Holz-Her Reich
Spezialmaschinen GmbH
Plochinger Straße 65
D-75622 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

Paul Ott GmbH
Maschinenfabrik
Carl von Linde-Straße 12
A-4650 Lambach
www.ottpaul.com

SCM Group S.p.A.
Via Casale, 450
I- 47827 Villa Verucchio (RN)
www.scmgroup.cpm

KLEIBERIT SE & Co. KG
Max-Becker-Str. 4
76356 Weingarten/Germany
Phone: +49 7244 62-0
Fax: +49 7244 700-0
Email: info@kleiberit.com
www.kleiberit.com

source: * Fa. HOMAG, ** Fa. BRANDT, *** Fa. DÖLKEN

KLEIBERIT®
ADHESIVES • COATINGS

KLEIBERIT® Adhesives worldwide

KLEIBERIT Adhesives (Head Office)
KLEIBERIT SE & 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.
Bejing, China

KLEIBERIT Adhesives Asia Pte. Ltd.
KLEIBERIT Coatings 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

www.kleiberit.com
Competence PUR