Edgebanding

Competence PUR
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 best components for success today and in the future

The adhesive specialists for all types of edges

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

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

**Classification**

**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
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.
The operating temperatures for PUR Hotmelts 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.

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Application</th>
<th>Cleaning</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium can</td>
<td>260 g net</td>
<td>Height 90 mm</td>
<td>Ø (id) 63 mm</td>
<td></td>
</tr>
<tr>
<td>Cartridge</td>
<td>300 g net</td>
<td>Height 215 mm</td>
<td>Ø (id) 47 mm</td>
<td></td>
</tr>
<tr>
<td>Stand-up pouch*</td>
<td>400 g net</td>
<td>Height 200 mm</td>
<td>LxW filled: 100 x 50 mm</td>
<td></td>
</tr>
<tr>
<td>Pouch pack aluminium*</td>
<td>2 kg net</td>
<td>Height 185 mm</td>
<td>Ø (id) 125 mm</td>
<td></td>
</tr>
<tr>
<td>Pouch pack aluminium*</td>
<td>20 kg net</td>
<td>Height 410 mm</td>
<td>Ø (id) 280 mm</td>
<td></td>
</tr>
<tr>
<td>Metal pail</td>
<td>20 kg net</td>
<td>Height 410 mm</td>
<td>Ø (id) 280 mm</td>
<td></td>
</tr>
<tr>
<td>Steel barrel</td>
<td>200 kg net</td>
<td>Height 885 mm</td>
<td>Ø (id) 371.5 mm</td>
<td></td>
</tr>
</tbody>
</table>

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

**PO EVA**

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.

**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 reset 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 into 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

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**Product Description**

- **Application**
- **Cleaning**
- **Packaging**
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.
- Temperature control is especially important for the bonding of DKS and solid wood edges.

- Work in the upper temperature 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.

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

<table>
<thead>
<tr>
<th>KLEIBERIT Products</th>
<th>Viscosity [mPas] at 120°C</th>
<th>Viscosity [mPas] at 140°C</th>
<th>Density [g/cm³]</th>
<th>Colour/ Delivery Form</th>
<th>Characteristics/Advantages</th>
<th>Fields of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>761.6</strong></td>
<td>5,000 - 10,000</td>
<td></td>
<td>0.98</td>
<td>blue/ granulate</td>
<td>• 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</td>
<td>• Cleaning of tank and drum melters, gear pumps and transport hoses, and metal application units (e.g. slot nozzle, roller).</td>
</tr>
<tr>
<td><strong>761.7</strong></td>
<td>11,000</td>
<td>6,000</td>
<td>0.98</td>
<td>blue/ granulate</td>
<td>• Avoidance of blocking and reactive contamination • Good mixing properties with PUR HM • Neutralises the isocyanate reaction</td>
<td>• Cleaning of melting and applicator equipment when changing over from one PUR to another</td>
</tr>
<tr>
<td><strong>826.0</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>clear/ liquid</td>
<td>• “Oily” liquid with a very high flame point • Only for machine parts and melting baths</td>
<td>• To clean mixing heads used for the mechanical application of PUR adhesives • To clean PUR hotmelt vessels</td>
</tr>
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<td><strong>827.0</strong></td>
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<td>-</td>
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### Packaging Sizes

- **15 kg in paper bag**
  - 20 kg or 25 kg
- **Big Bag**
  - up to 750 kg net
- **Cardboard Box**
  - up to 500 kg

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**KLEIBERIT**

**ADHESIVES • COATINGS**

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**Product Description | Application | Cleaning | Packaging**

**Edgebanding**
Partners of KLEIBERIT

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