Surface Lamination

with liquid adhesives

Polyurethane • PVAC • EVA • Urea • Melamine
Surface bonding and lamination
with liquid adhesives

Surface bonding is used in a multitude of different industries: the building, automotive and furniture industry are only some examples. Depending on the range of requirements, the substrates to be bonded and the technical process, a wide variety of different adhesive systems are available.

1C PUR Adhesives (One Component Polyurethane)
1C PUR is highly recommended wherever joint filling and thermosetting properties are required. With its outstanding adhesion, only 1C PUR allows to join various materials such as wood, metal and plastic with smooth or coarse surfaces, in a simple process, providing bondings on highest quality levels. 1C PUR has been the preferred system for sandwich elements, insulating boards etc. made of wood, ceramic, concrete or rigid foams.

Application: 1C PUR liquid adhesives can be applied both manually (spatula, glue rollers) and automatically. The automatic application techniques typically includes spraying or application of multiple beads next to each other.

EVA Dispersions (Ethylene Vinyl Acetate)
Provides a hard elastic glue line after setting. For lamination of papers or PVC foils (loudspeakers and furniture).

PVAc Dispersions (Polyvinyl Acetate)
Provides a hard glue line after setting. For bonding of veneer to a variety of wooden substrates.

Application: Dispersion adhesives are usually applied with a two roller (or four roller glue spreader, unit directly to the substrate surface. Dispersions typically have excellent dosing properties and good flowing properties on rollers. Dispersions can also be applied manually using spaulas, hand rollers or brushes. In most cases a nip roller is sufficient for pressing. For final bond strength, the panels pass a heating section or are stacked over night (drying process).

Standard Adhesives for surface bonding /lamination

<table>
<thead>
<tr>
<th>Products</th>
<th>Sandwich elements</th>
<th>Panel</th>
<th>Lamination of large surfaces</th>
<th>Multi-layer veneer production</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>KLEIBERIT 501.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>2D according to DIN/EN 204, short press times, high temperature resistance according to WATT 91 &gt; 9 N/mm²</td>
</tr>
<tr>
<td>KLEIBERIT 502.8</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>3D quality according to DIN/EN 204</td>
</tr>
<tr>
<td>KLEIBERIT 332.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>short press times, suitable for combination bondings</td>
</tr>
<tr>
<td>KLEIBERIT 333.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>joint filling up to 20-25 minutes at 50°C (±1°C)</td>
</tr>
<tr>
<td>KLEIBERIT 453.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>high temperature resistance according to WATT 91 &gt; 9 N/mm²</td>
</tr>
<tr>
<td>KLEIBERIT 464.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>very smooth surface - no telegraphing through papers</td>
</tr>
<tr>
<td>KLEIBERIT 871.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>very good ratio open time/pressing time</td>
</tr>
<tr>
<td>KLEIBERIT 881.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>very high bond quality</td>
</tr>
</tbody>
</table>

KLEIBERIT Polyurethane adhesives

KLEIBERIT 501.0
- moisture curing adhesive
- recommended for all common building components
- approval for marine applications
- certified water resistance D4 according to DIN/EN 204
- for interior use
- highest temperature resistance according to Watt 91 > 9 N/mm²
- excellent joint filling
- medium to long open time systems available [from 8-70 min.]

KLEIBERIT 502.8
- moisture curing adhesive
- hard elastic glue line (suits for various foam composites)
- high water resistance
- excellent temperature resistance
- short to very long open time systems available [from 6-120 min.]

KLEIBERIT Dispersion Adhesives

KLEIBERIT 303.0
Universal dispersion on PVAC basis for surface bonding of veneers and HPL materials
- approval for marine applications
- bonding quality D3, with hardener 303.5 D4 according to DIN/EN 204
- very good ratio open time/pressing time
- outstanding processing performance using application machines

KLEIBERIT 322.0
Special dispersion on PVAC basis for veneering
- extended open time up to 20-25 min. for manual applications
- approval for marine applications

KLEIBERIT 453.0/464.0
Dispersion EVA basis for surface lamination of PVC and paper foils
- very good processing performance
- suitable for cold and thermo lamination
- very smooth surface - no telegraphing through papers
- brilliant optic also with thin foils

Urea and melamine resin adhesives

KLEIBERIT 871.0 hot press glue
- urea resin adhesive with built-in hardener
  - easy to mix
  - low formaldehyde content E1
  - short pressing times

KLEIBERIT 881.0 hot press glue
- urea resin adhesive with built-in hardener
  - suitable for the production of 3 layer parquets
  - A 100 quality
  - very high bond quality