Postforming and Direct Postforming

A crucial process in the furniture industry is the forming of HPL, CPL and multi layer papers and veneers around profiled edges (postforming/direct postforming). The transition between surface and edge bonding without a visible glue line plays an important role in the production of worktops and also in the production of furniture fronts.

The method of postforming/direct postforming will determine the adhesive system used. Dispersion adhesives, based on polyvinyl acetate are sprayed onto both sides, meaning the adhesive is being applied to the profiles chipboard edge, the HPL and CPL and the paper and veneer overlaps.

The same process (i.e. application to both sides) is used for solvent-based adhesives, used mainly in America and Asia.

The demand for following hotmelt is increasing:
- ethylene-vinyl acetate (EVA)
- polyolefin (PO)
- and reactive (PUR) basis.

The hotmelt adhesives are applied one-sided on the overlaps using slot nozzles or application rollers.

The adhesives for direct-postforming must have a superior green strength to compensate for the high memory of laminating materials.
KLEIBERIT 347
Synthetic resin glue
• for postforming in-line or stationary
• suitable for fast press processing (surface bonding) eg. bonding of laminates in a short cycle press
• very short setting times

KLEIBERIT 303.8
PVAC dispersion
• bond quality D3 according to DIN/EN 204
• for postforming machines in-line and also stationary
• good spraying properties
• high green strength

KLEIBERIT 777 EVA-HM
• for direct-postforming, softforming and for straight edges
• high heat resistance up to 100°C

KLEIBERIT 753.5 PO-HM
Polyolefin heatmelt adhesive for edgebanding, also in the CNC processing centre, for laminating materials such as HPL, CPL, strong paper and veneer.
• very good melting behaviour
• high temperature resistance from 20°C up to 120°C
• very high green strength

KLEIBERIT 707.7/707.9 PUR-HM
Polyurethane heatmelt for postforming of HPL, CPL, multi layer papers and veneers.
• with additional chemical cross linking
• excellent temperate, moisture, water and steam resistance
• application equipment: roller, nozzle

Adhesives for postforming and direct-postforming (field of application e.g. worktops, kitchen fronts)

<table>
<thead>
<tr>
<th>Product</th>
<th>Basis</th>
<th>Application</th>
<th>Properties</th>
<th>Machines</th>
</tr>
</thead>
<tbody>
<tr>
<td>152 SP</td>
<td>Polychloroprene</td>
<td>spray application both sides</td>
<td>• excellent green strength for HPL bondings up to 1 mm</td>
<td>Suitable for in-line as well as stationary process</td>
</tr>
<tr>
<td>347</td>
<td>PVAC-dispersion</td>
<td>application on both sides  a) spray method  b) overlay with application roller / profile with spray application</td>
<td>• very good sprayable  • no clog up of application jets  • high green strength  • HPL up to 1 mm possible  • D3-adhesive (DIN/EN 204/205)</td>
<td>Postforming, in-line with speeds between 2 - 25 m/min.  • IMA, Lübbecke/Germany  • Homag, Schopfloch/Germany  • Evans, USA  • Midland, USA  • IDM, Italy</td>
</tr>
<tr>
<td>303.8</td>
<td>PVAC-dispersion</td>
<td>application on both sides  a) spray method  b) overlay with application roller / profile with spray application</td>
<td>• D3-adhesive DIN EN 204/205  • very good sprayable  • high green strength  • HPL up to 0,8 mm possible</td>
<td>Stationary postforming machines:  • Brandt, Langen/Germany  • Evans, USA  • Midland, USA</td>
</tr>
<tr>
<td>777</td>
<td>EVA-hotmelt</td>
<td>• temperature resistance  • -20°C to 80°C  • CPL/HPL-materials up to 0,6 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>753.5</td>
<td>PO-hotmelt</td>
<td>• temperature resistance  • -20°C to 110°C  • depending on material thickness  • very high green strength  • CPL/HPL-materials up to 0,8 mm possible</td>
<td>Direct postforming, in-line with speeds between 10 - 20 m/min.  • IMA AG, Lübbecke  • Homag, Schopfloch/Germany  • IDM, Italy  • SCM, Italy</td>
<td></td>
</tr>
<tr>
<td>707.9</td>
<td>Reactive PUR-hotmelt</td>
<td>• temperature resistance  • -20°C to 140°C  • depending on material thickness  • CPL/HPL-materials up to 0,6 mm  • high green strength  • with long pressure-area up to 0,8 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KLEIBERIT 152.5 SP
Polychloroprene solvent-based adhesive
• for HPL/CPL surface bonding and postforming in-line
• for stationary postforming processes

Direct-postforming is possible for a multitude of laminating materials such as veneer, paper, CPL and HPL.