WOOD GLUE
Product Guide
### WOOD GLUE - RETAIL

<table>
<thead>
<tr>
<th>Product</th>
<th>Brief Description</th>
<th>Application temp. (Min. °C / Max. °C)</th>
<th>Open time</th>
<th>Press time</th>
<th>Water resistance (EN 204/205)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood Glue PU Light 421</td>
<td>One-component polyurethane adhesive for bonding of most wood joints, metals and rigid plastics. Moisture/water is needed when PU adhesive cures. High strength and water resistance of glue joints will be obtained when wood moisture content is high.</td>
<td>+15/+40</td>
<td>30</td>
<td>180</td>
<td>D4</td>
</tr>
<tr>
<td>Wood Glue PU Dark 422</td>
<td>Same type as Wood Glue PU Light 421, but has higher viscosity and light brown glue lines.</td>
<td>+15/+40</td>
<td>30</td>
<td>180</td>
<td>10.000 D4</td>
</tr>
<tr>
<td>Wood Glue D3 Outdoor 430</td>
<td>A fast setting and strong bonding 1-component PVC adhesive. Suitable for furniture, frame wood and kitchen tables used in wet rooms. D4 water resistance can be obtained by adding 5% of DANAFIX Hardener 921 or Dark Hardener 922.</td>
<td>+3/+90</td>
<td>5-6</td>
<td>57</td>
<td>D3</td>
</tr>
<tr>
<td>Laminate Floor Glue 433</td>
<td>An allround PVC wood adhesive, is especially developed for gluing of tongue and other wooden floors. UV detector is added.</td>
<td>+3/+90</td>
<td>5-6</td>
<td>57</td>
<td>13.000 D3</td>
</tr>
<tr>
<td>Wood Glue D4 Outdoor 440</td>
<td>2-component PVC wood adhesive, suitable for furniture, frame wood and kitchen tables used in wet rooms. The adhesive itself fulfills D2 water resistance. D4 water resistance is achieved when adding 5% light Hardener 922.</td>
<td>+3/+90</td>
<td>5-6</td>
<td>57</td>
<td>18.000 D2</td>
</tr>
<tr>
<td>Uredana Wood Glue 450</td>
<td>Urea-formaldehyde resin powder. Water should be added before use. The adhesive has high bonding strength, moderate weather resistance and good gap filling capacity.</td>
<td>+3/+90</td>
<td>45 (20°)</td>
<td>90 (20°)</td>
<td>- C3</td>
</tr>
<tr>
<td>Wood Glue Winter 465</td>
<td>Anti-frost all-round indoor PVC wood adhesive, suitable for working temperature down to -10 °C.</td>
<td>-10/+70</td>
<td>6</td>
<td>10</td>
<td>14.500 -</td>
</tr>
<tr>
<td>DANAFIX 461 H/G Taplim</td>
<td>PVAc adhesive designed for tenon, dowel joints where strong bonding are requested. A UV-detector is added.</td>
<td>+10/+70</td>
<td>6-10</td>
<td>6</td>
<td>9.000 -</td>
</tr>
<tr>
<td>Wood Glue Indoor 490</td>
<td>Fast setting, strong bonding PVC adhesive for all kinds of indoor wood applications.</td>
<td>+10/+70</td>
<td>5-6</td>
<td>6</td>
<td>13.000 -</td>
</tr>
</tbody>
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### WOOD GLUE - INDUSTRY

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<thead>
<tr>
<th>Product</th>
<th>Brief Description</th>
<th>Application temp. (Min. °C / Max. °C)</th>
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<th>Press time</th>
<th>Water resistance (EN 204/205)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANAFIX 434</td>
<td>Fast setting, suitable viscosity, high moisture resistant and all-round PVAc-adhesive with neutral pH. No discolouration.</td>
<td>+5/+90</td>
<td>5-8</td>
<td>4</td>
<td>9.000 D3</td>
</tr>
<tr>
<td>DANAFIX 435</td>
<td>Fast setting, suitable viscosity, high moisture resistant and all-round PVAc-adhesive with high bonding strength. D4-class if used with 5% DANAFIX Hardener 921.</td>
<td>+3/-90</td>
<td>6-8</td>
<td>4</td>
<td>10.000 D4, 10.000 D4, 10.000 D3</td>
</tr>
<tr>
<td>DANAFIX 437</td>
<td>Moisture resistant PVAc-adhesive for finger joint applications. UV detector has been added. D4 water resistance if used with 5% DANAFIX Hardener 921.</td>
<td>+5/+90</td>
<td>7-10</td>
<td>4-6</td>
<td>6.200 D3</td>
</tr>
<tr>
<td>DANAFIX 439</td>
<td>Moisture resistant, all-round PVAc-adhesive with high strength. UV detector has been added. D4-water resistance if used with 5% DANAFIX Hardener 921.</td>
<td>+5/+90</td>
<td>7-10</td>
<td>4-6</td>
<td>7.000 D3</td>
</tr>
<tr>
<td>DANAFIX 446</td>
<td>1-component D4 PVAc-adhesive with very high bonding strength, suitable for finger joint application. Fulfills WAIT 91 and the demands of frame wood production for doors and windows.</td>
<td>+5/-80</td>
<td>5-8</td>
<td>6</td>
<td>4.500-5.500 D4</td>
</tr>
<tr>
<td>DANAFIX 463</td>
<td>Mastic used for easy manual joints and is suitable for gluing accessory to self-assemble furniture.</td>
<td>+10/+70</td>
<td>10</td>
<td>20</td>
<td>10.000 -</td>
</tr>
<tr>
<td>DANAFIX 467</td>
<td>Dowel- and tenon PVAc adhesive with very low viscosity. For automatic application.</td>
<td>+10/+70</td>
<td>10-15</td>
<td>10</td>
<td>400 -</td>
</tr>
<tr>
<td>DANAFIX 471.2</td>
<td>D3 PVAc-based fast setting foil bonding adhesive, specially developed for foaming application where very low glue amount is used.</td>
<td>+5/+70</td>
<td>4-5</td>
<td>1</td>
<td>6.300 -</td>
</tr>
<tr>
<td>DANAFIX 476</td>
<td>EVA based adhesive for gluing foil on wood, fibre- and plastic boards etc, offers very good wet tack.</td>
<td>+0,50</td>
<td>10</td>
<td>-</td>
<td>5.000 -</td>
</tr>
<tr>
<td>DANAFIX 496</td>
<td>Fast PVAc-adhesive for all indoor wood joints. Especially for automatic application and press. UV detector has been added.</td>
<td>+10/+80</td>
<td>3-5</td>
<td>8</td>
<td>13.000 -</td>
</tr>
<tr>
<td>DANAFIX 497</td>
<td>Allround PVAc-adhesive with longer open assembly time, for all indoor wood joints. Recommended for only soft wood types.</td>
<td>+10/+80</td>
<td>8-10</td>
<td>30</td>
<td>12.000 -</td>
</tr>
</tbody>
</table>

**Application temp.**
- Min. °C: Minimum temperature for use.
- Max. °C: Maximum temperature for use.

**Open time**
- If the waiting time is “closed”, it can be prolonged 1-2 min.

**Press time**
- Min. minuts. Pine 9% wood moisutre content 20 °C

**Viscositet**
- (mPas)

**Water resistance**
- EN 204/205
GLUING WOOD GUIDE

In preparing a good glue joint, although a suitable glue has been chosen, it is still necessary to keep your mind on a couple of ground rules:

1. Working temperature should be higher than minimum film forming temperature (MFFT).
2. Control wood moisture to the required level.
3. Clean surface and ensure suitable surface tension
4. Joints should fit properly
5. Apply correct quantity of glue on the joint.
6. Assemble wood elements within open time.
7. Choose correct pressing temperature and pressing time.

Application of adhesive
The glue can be applied with a brush or a roller or nozzle. It is important that the glue is applied evenly. The necessary quantity of glue applied depends on absorbency and fit of the wood, normally ranges between 100-250 g/m². The glue is often only applied to one surface, so called one-sided application, when working with solid wood or wood containing oils and resins, double-sided application is recommended. The sufficient quantity of glue is achieved if small glue beads is squeezed out of both sides of the joint under pressure.

• Open time:
Open time is defined as the period “after application of adhesive during which wet bonding is possible” according to DIN 16920. However, people also know it as the time between application of adhesive and the time pressure is applied. On page 2 in the brochure, the stated open times are obtained by using pine wood with the wood moisture of 9% and 50% relative humidity of air, the testing temperature is around 20°C.

• Closed assembly time:
According to DIN 16920, it is the time after closing of the wood elements until the required pressure is reached. Closed assembly time is part of open time.

• Pressing time and pressing temperature:
To achieve a successful joint, correct pressing time and pressing temperature have to be chosen. If pressing time is not sufficient or pressing temperature is lower, joints perhaps will open after pressure is released. If pressing temperature is increased, the pressing time can be decreased co-ordinately. The stated pressing times in this brochure are minimum and they can vary depending on the wood type and pressing temperature.

By using PVAc, extra pressing time can be suggested for following cases:

- Hard/oil-containing wood: +50% -100%
- Decreasing 5°C in temperature: +100%
- Wood moisture is 15%: +100%

• Pressure:
Pressure must be sufficient to guarantee required fit of the joints. A pressure of 1-3 kg/cm² is common used for veneering and compact laminating, 7-10 kg/cm² is for soft wood laminating, and 13-15 kg/cm² is recommended for hard wood like oak. Be aware that too high pressure might result in glue penetrating into the substrates or being squeezed out so that there is not enough glue left in glue line, and consequently lead to defective bonds. A fully bonding strength could be obtained after 24 hours.

In general, open time and pressing time can be prolonged in the situation listed below:

- Too high wood moisture
- High of relative humidity in air
- Low wood and room temperature
- High density of wood
- Thick layer of glue
- Low press temperature
- Double-sided application

The open time and pressing time can be reduced if:
- The relative humidity is low
- Wood and room temperature is high
- Wood surface is porous
- Glue layer is thin.

If clamp is used, the following is suggested:
- Pine: 300 cm² per clamp
- Mahogany: 250 cm² per clamp
- Teak: 200 cm² per clamp

Polyurethane glue requires approx. half of the area per clamp.

Finishing of glued wood
Wood finishes give a desired appearance, protect wood surfaces, and provide a cleanable surface. However, when selecting a finish, one should consider whether the finishing performances will impact glued joints and also how surface properties of glued lines affect finish applications. At page 6 the guideline table indicates the suitable finishing on the different type of adhesives. It is strongly recommended to carry out sufficient finishing tests before larger scale of finish performances.

Staining:
There are many types of products can be used for staining including oil-based, water-based, solid-color stains as well as wood conditioners. If the adhesive is not stainable, problems such as discoloration, blister and cracking might be caused after performance. In general, PU and UF adhesives are more stainable than PVAc adhesives.

Vacuum impregnation:
Finishes will penetrate into wood by vacuum impregnation in order to retard water absorption and extend their service life. Adhesives have to be dried minimum 1 day at 20°C before impregnation.

Lye treatment
Wood lye treatment has a lightening effect on the wood. Cross-linkable adhesives such as PU, UF resins and D4 PVAc can be considered to tolerate lye treatment. Otherwise they are not recommended.

Advice and guidance
The products mentioned in this folder are DANA LIM’s general wood adhesives. DANA LIM produces others and more specialized adhesives. In case of request special tasks or in need of further information or a good advice, please do not hesitate to contact DANA LIM’s Technical Service on phone number +45 56 64 0075.
All products’ Technical and Safety data sheets are available on DANA LIM’s home page: www.danalim.dk.
## Product Guide - Detail

### Adhesion

- **Recommended**
- **Test first**
- **Not recommended**

### Laminating (Laminated Wood)

<table>
<thead>
<tr>
<th>Furniture</th>
<th>Cold press (clamps)</th>
<th>Cold press (automatic systems)</th>
<th>High frequency</th>
<th>Warm press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame wood</td>
<td></td>
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<table>
<thead>
<tr>
<th>Furniture</th>
<th>Dowel joint - Automatic assembling</th>
<th>Dowel joint / Tenon joint - Manual</th>
<th>Tenon joint</th>
<th>Finger joint</th>
</tr>
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<tbody>
<tr>
<td>Outdoors (Frame wood)</td>
<td>Tenon joint</td>
<td></td>
<td></td>
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<tr>
<td>Floor</td>
<td>Laminate floor (tongue and groove)</td>
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### Assembling

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### Edge Bonding

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<tr>
<th>Wood</th>
<th>Cold press</th>
<th>Heating bars</th>
<th>High frequency</th>
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</table>

| PVC  | Cold press |

### Surface Bonding

<table>
<thead>
<tr>
<th>Veneering</th>
<th>Veneer/chip board</th>
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<tbody>
<tr>
<td>- Warm press</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cold press</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Foiling</th>
<th>PVC-film/wood fibre board</th>
<th>Metal-film/wood fibre board</th>
<th>Impregnated paper/wood fibre board</th>
<th>Laminate/wood fibre board</th>
</tr>
</thead>
</table>

**In practice, variations can occur in the different materials, therefore it is always recommended to carry out sufficient bonding tests before commencing - in particular for larger tasks.**

### Laminating (laminated wood)

![Furniture](image1)

![Frame wood](image2)

![Dowel joint](image3)

![Tenon joint (Tongue/Groove)](image4)

![Finger joint](image5)
In practice, variations can occur in the different materials, therefore it is always recommended to carry out sufficient bonding tests before commencing - in particular for larger tasks.
### Adhesion

- **Recommended**
- **Test is recommended**
- **Not recommended**

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<tbody>
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| WOOD     | Ash  | ●                      | ●                     | ●                        | ●                        | ●                        | ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● &
### Material Guide - Industry

#### WOOD
- Ash
- Beech
- Oak
- Elm
- Pine
- Fir
- Mahogany
- MDF
- Cherry
- Palisander
- Pitch pine (american pine)
- Sipo
- Chipboard
- Teak
- Stain
- Lacquer
- Pressure impregnate
- Vacuum impregnate
- Metal, general
- Metal foil
- Synthetic, general
- PVC-foil
- Laminate
- Plasterboard
- Masonite, soft
- Cork
- Cardboard/paper
- Textile
- Glass

#### WOOD (treated)

#### METAL
- General
- Foil

#### SYNTHETIC
- General
- PVC-foil

#### VARIOUS
- General

---

In practice, variations can occur in the different materials, therefore it is always recommended to carry out sufficient bonding tests before commencing - in particular for larger tasks.

---

#### Finishing of glued wood
- Can be carried out
- Test is recommended

For further information about treatment of glued subjects, see page 3.

---

#### Adhesion
- Recommended
- Test is recommended
- Not recommended

---

### In practice, variations can occur in the different materials, therefore it is always recommended to carry out sufficient bonding tests before commencing - in particular for larger tasks.

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### Finishing of glued wood
- Can be carried out
- Test is recommended

For further information about treatment of glued subjects, see page 3.
Moisture/water resistance
Different types of adhesives contribute different levels of moisture/water resistance. In general, thermosetting resins such as epoxies, urea-formaldehyde and polyurethane are considered to be adhesives having higher level of water resistance due to their well cross-linked chemical structure. As thermoplastic resins like polyvinyl acetate (PVAc) adhesive, without any cross-link, have poor chemical structure. As thermoplastic resistance due to their well cross-linked adhesives having higher level of water and polyurethane are considered to be such as epoxies, urea-formaldehyde resin, the water resistance might be reduced to D1. Modified crosslinkable PVAc dispersion only reach D2 durability class, by adding fillers or plasticizers into formulation, the water resistance might be reduced to D1. Modified crosslinkable PVAc with pH of 3 or 4-5 for new generation can provide D3 or even D4 grades.

Concerning thermosetting resins like urea formaldehyde resin, the water resistance is classified as C1, C2, C3 and C4 according to EN 12765.

In the table at this page, the application of different water resistant of adhesives has been recommended.

Heat resistance
The heat resistance of glued wood joints is an important characteristic to evaluate whether the product can be used in the application of engineered wood. Basically with increasing the temperature, the bonding strength of wood joints decreased. However, there are big differences in heat resistance between thermoplastic and thermosetting adhesives. The wood joints glued with PU or UF adhesive can be used in the condition that the temperature is up to 110°C at which the bonding strength is only slightly decreased compared to its strength at 20°C. The wood joints bonded by D2 PVAc adhesive show strong bonding when temperature is between 20 to 40°C, but with temperature increased to 50°C, the strength will be great decreased. Crosslinked PVAc like D3 and D4 glues can offer heat resistance up to 80°C specially when glue is approved by means of EN 14257 Watt 91 test.

In the application of load-bearing construction, PVAc adhesives are not recommended, instead PU adhesives as well Melamine urea formaldehyde resin are preferable.

DANAFIX 400-series is the professional wood adhesives which are particularly developed for the Danish furniture-and wood industry. We offer solutions in all tasks and have more than 40 different products divided in nine groups. For each product you may requier special data sheet giving the full overview of all possibilities.

<table>
<thead>
<tr>
<th>Moisture/Water Resistance Classification</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior use, in which the temperature only occasionally exceeds 50°C for a short time. The moisture content of the wood is max. 15%. E.g. furniture is placed in dry rooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior use with occasional short time exposure to running or condensed water. The moisture content of the wood should not exceed 18%. E.g. furniture in dry rooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior use with frequent short time exposure to running or condensed water and/or can be long time exposed to high humidity. E.g. furniture and equipment in wet rooms, kitchen tables and wood exposed to high moisture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior use with frequent long time exposure to running or condensed water. Exterior use only if product is protected by an adequate surface coating. E.g. frame wood for windows and doors, garden furniture and wood, and equipment exposed to high moisture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The tensile strenght of the adhesive is tested accordingly to EN 204/205, after the bonded joints have been kept under different climate conditions.