POPLAR TECHNICAL FEATURES

COMPOSITION
The outer face and core layers of the board are entirely made of poplar veneers. The outer faces may have longitudinal or transverse fibres, that is, fibres direction may run down or across the board.

Under UNI EN 313-2 standard, board measurements are based on the fibres with the first measurement corresponding to the fibre direction:
(e.g. in trasverse plywood the measurement is 125x250cm. whereas in longitudinal plywood is 250x125 cm.)

GLUING
Poplar plywood is generally obtained using urea based glues for panels suitable for use in dry conditions (UNI EN 636-1).
Melamine and phenol based glues may also adequate for use in humid conditions (UNI EN 636-2).
Gluing quality is determined in conformity to UNI EN 314 standard after being adequate pre-treatment for resistance to humidity (gluing class).

FORMALDEHYDE EMISSION
Class A (UNI EN 1084)

CLASSIFICATION ACCORDING TO FACE APPEARANCE
The face appearance of poplar plywood is classified to UNI EN 635-1 and UNI EN 632-2. The main classes are I, II, III, IV.
Each panel face is separately classified. There may be several combinations e.g. I/II, II/III, III/IV.

DIMENSIONAL TOLERANCE
Dimensional tolerance (length, width, thickness, squareness and straightness) are in conformity with UNI EN 315 standard.

MOISTURE CONTENT
The moisture content of poplar plywood as determined when supplied, in conformity to UNI EN 322 standard, is less or equal to 12%.
Resistance, stiffness, density and flexibility are strictly related to the type of poplar clone used as well as panel composition, that is, veneer thickness in longitudinal and transversal layers.

The followings are the average approximate values for the actual national production.

**THICKNESSES**
The thicknesses shown below are those most commonly produced
On request, some firms produce other thicknesses
Nominal thicknesses (mm) 3-4-5-6 8-10-12-15 18-20-22 25-28-30 35-40 45 45-50
Minimum numbers of layers 3 5 7 9 11 13 15

**DIMENSIONS**
The dimensions shown are the most commonly produced
The dimensions shown are produced by single firms and on request special dimensions can be produced

<table>
<thead>
<tr>
<th>Lenght (cm)</th>
<th>202</th>
<th>204</th>
<th>212</th>
<th>222</th>
<th>242</th>
<th>252</th>
<th>310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (cm)</td>
<td>122</td>
<td>124</td>
<td>124</td>
<td>162</td>
<td>172</td>
<td>182</td>
<td>210</td>
</tr>
</tbody>
</table>

Average values
Thickness (mm)/no.layers
Indicative of the physical-mechanical properties for some composition

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>Standard</th>
<th>Unit</th>
<th>4/3</th>
<th>8/5</th>
<th>15/7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>UNI EN 323</td>
<td>Kg/m3</td>
<td>390</td>
<td>410</td>
<td>400</td>
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<tr>
<td>Bonding</td>
<td>UNI EN 314</td>
<td>Class 1 compliant</td>
<td>compliant compliant compliant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bending strenght, longitudinal</td>
<td>UNI EN 310</td>
<td>N/mm2</td>
<td>44</td>
<td>38</td>
<td>43</td>
</tr>
<tr>
<td>Bending strenght, transversal</td>
<td>UNI EN 310</td>
<td>N/mm2</td>
<td>24</td>
<td>31</td>
<td>42</td>
</tr>
<tr>
<td>Moduls of elasticity, transversal</td>
<td>UNI EN 310</td>
<td>N/mm2</td>
<td>5300</td>
<td>4000</td>
<td>4600</td>
</tr>
<tr>
<td>Moduls of elasticity, longitudinal</td>
<td>UNI EN 310</td>
<td>N/mm2</td>
<td>1300</td>
<td>3400</td>
<td>4800</td>
</tr>
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