

# ENGINEERED DOOR QUALITY STANDARDS

## SPECIFICATION FOR DOOR SLAB

### Tolerance Level

Thickness	+/-	0.5mm
Width	+/-	1.0mm
Length	+/-	2.0mm
Spring		2.0mm
Bow		2.0mm
Twist		3.0mm
Diagonal	Max. Deviation	3.0mm

### Construction of Doors

Components	Laminated and Veneered
Panels	Membrane Pressed
Joints	Dowel joint
Veneering Method	Either Pre-Assembled or Post-Assembled

### Door Quality

Machining	Minimum 12 cuttermarks per inch Furriness on Ovolo not allowed No chipped out of grain Burnt marks on Ovolo not allowed Sand raised grain well
Gluing	Glue bleed through not allowed Remove glue contamination on door surface
Sanding	240 grit sandpaper will be used to finish the door Slightly ease sharp corner edges Minimize cross sanding marks with orbital sanders
Joints	Tight scribed joints Occasional Hairline gap is allowed at the shoulder joints
Repairs	Allowed only if not noticeable to the naked eye

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### SPECIFICATION FOR RAW MATERIAL USED

Lumber	<ul style="list-style-type: none"><li>Moisture content between 8-12%</li><li>No serious mineral streak</li><li>No strong discoloration</li><li>No loose knots</li><li>Minute knots allowed if not numerous</li><li>No pin holes on Ovolo profile</li><li>Good color matching</li><li>No surface checking on ovolo profile</li><li>No case hardening</li></ul>
Edge Strip	<ul style="list-style-type: none"><li>Minor discoloration allowed</li><li>Pin holes allowed if well filed</li><li>Limited sapwood allowed</li><li>Tight large knots allowed</li><li>Minute knots allowed if not numerous</li><li>Large flaky rays allowed</li><li>No finger joint except for softwood species such as pine</li><li>Finished width of edge strip is to be minimum 10mm</li><li>Edge strip of up to 18mm can be considered at a slight premium</li></ul>
Sticking (Ovolo)	<ul style="list-style-type: none"><li>Butt joint is allowed if concealed</li><li>Good coloring/tonality match</li><li>No serious discoloration</li><li>No pin holes</li></ul>
End Caps	<ul style="list-style-type: none"><li>Standard 12mm width after trim</li><li>End caps of up to 42mm can be considered at a slight premium</li><li>Other wood species with reasonable color match is allowed</li><li>Moisture content between 8-12%</li><li>Not rotten</li><li>Defects that are opened in nature not allowed</li></ul>
Veneer	<ul style="list-style-type: none"><li>Moisture content between 12-15%</li><li>Quarter cut or rift cut for components</li><li>Flat cut for panels</li><li>Occasional use of quarter or flat cut for the entire door is allowed</li><li>Good color match</li><li>Minimal Mineral Streak</li><li>No sap</li><li>No large knots</li><li>Minute knots allowed if not numerous</li><li>Excessive large and flaky rays not allowed</li><li>Bottom rails and panels of all doors allowed to be book match spliced</li></ul>

Wood Core	<p>Preferably finger jointed and laminated along edge</p> <p>Well dried to 8-12% moisture content out from kiln dry</p> <p>When rubber wood is used it must be suitably pressure treated with Borax</p> <p>Use of LVL/LVB as core is allowed</p> <p>Use of blockboard as core is allowed</p> <p>Occasionally need to laminate on face to build up thickness is allowed</p> <p>Density range of 500 - 700 kg/m<sup>3</sup> is preferred</p> <p>Defects that do not impair its strength/gluing properties are allowed</p>
Particleboard	<p>Density between 600 – 700 kg/m<sup>3</sup> +/- 20%</p> <p>Moisture content between 8-12%</p> <p>Both plantation or forest wood based are allowed</p> <p>Strength properties must exceed those stated in EN 1993</p> <p>Moisture resistance used for interior doors</p> <p>Use as core materials for stiles and components when specified</p>
MDF	<p>Must have strength properties exceeding those in EN 309-5</p> <p>Use as core material for membrane pressed panels</p> <p>15mm for double sided fielded panel and 10mm for single sided</p> <p>Density between 500-600 kg/m<sup>3</sup></p> <p>Moisture resistance grade used for interior doors</p> <p>Moisture content between 8-12%</p>
Glue	<p>Glue used for interior doors must passed EN 204-205 Class 2 standard</p> <p>Color dye may be used if it does not affect the gluing properties</p> <p>Lamination can either be cold, hot or RF (Radio Frequency)</p>