

Surface Preparation

A good machined finish is often the best surface preparation for joinery finishes. A sharp cutter shears the timber fibres cleanly, leaving a uniform absorbent surface which provides a good key for priming or a base stain. A blunt cutter will compress and polish the surface fibres, producing an inconsistent surface which may appear patchy when stained.

Sanding can also tear and shred surface fibres, which encourages grain raising, particularly when water based coatings are applied, whilst at the other extreme high speed sanders with fine grade of abrasive paper can polish the surface, giving a result similar to that achieved with a blunt cutter.

These comments about sanding may seem counter intuitive, but the following simple test will illustrate the effect:

Take a section of machined softwood and cut into two pieces. Using an orbital or belt sander with a coarse grade of abrasive paper, sand one face of the first section; on the second piece of timber draw a sharp cabinet scraper, plane blade, or chisel across one face of the section. Dip both pieces into a basecoat stain or dipping primer (waterborne products will exaggerate the result). It will be clearly seen that the sheared surface produces a far superior result to the sanded surface.

With some of the lower cost hardwoods grain raising will occur, regardless of how these timbers are machined and sanded, because they are fibrous by nature. In these cases, the timber should be sealed before too much effort is put into achieving a good surface. With translucent finishes, the penetrating stain coat does not seal the surface and so the first build coat must be applied before the surface finish can be significantly improved. Having sealed the surface it is then possible to de-nib any raised fibres.

Sanding

Sanding is commonly used for small scale, purpose-made, joinery and finishing results can be greatly improved by limiting sanding and denibbing processes and selecting the appropriate grade of abrasive paper.

This is very important where automatic drum sanders are used. The grit of the belt on the first drum should be as fine as possible to prevent the substrate being ripped open, ideally 120, with subsequent belt grades coordinated to close the surface and the finishing belt 220 or 240 grit.

There are three belt machines available that include one belt rotating at 90 degrees to the other two. Tests have shown that an improved surface & closing of the substrate is achieved with this system especially when the reduction of raised grain profile is a priority.

Brush type denibbing machines also provide a good level of surface when used correctly within the finishing process.

Wire Wool

Wire wool has traditionally been used for finishing in the Cabinet Making and French Polishing trades, but should not be used for external work, since small particles of wire become trapped in the surface and rust when exposed to weather, degrading the finish.

Finishing Pads

Nylon and foam filled denibbing pads are very useful for denibbing, particularly on mouldings, and profiled sections. The fine grit efficiently removes protruding fibres while discouraging over sanding and the removal of coating from sharp edges.