

## Laminating Small Items

The method for laminating smaller items, such as trays, hatch-covers, etc, is fairly straightforward. Once the mould has been treated with release agents, prepare some glass fibre by cutting it to the shape and size of the mould (it should overlap the edges by an inch or two all round), then mix up the gelcoat resin.



### GELCOAT

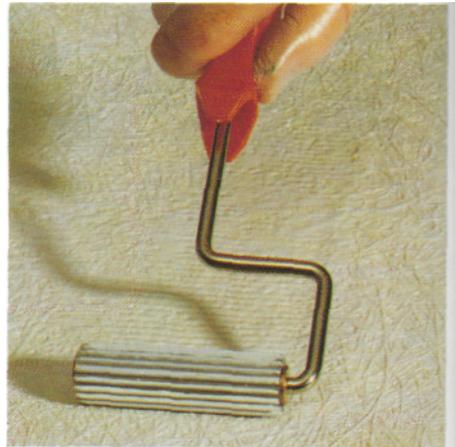
Pour the gelcoat resin into a mixing bucket. If the laminate is to be self-coloured (as it usually is!), pigment the resin with a maximum of one part pigment to ten parts resin. Add 20ml of catalyst per kilo of resin. Stir thoroughly, then use a brush or polyester roller to cover the mould surface evenly with gelcoat. Wait for at least an hour, until the gelcoat becomes tacky (it will feel slightly sticky but will not actually adhere to the touch). The gelcoat is specially formulated to remain tacky - it facilitates a good bond with the succeeding laminate.

### LAY-UP

Add catalyst to a suitable quantity of pigmented lay-up resin (Resin A).- Paint the Resin A over the gelcoat then cover the mould surface with a piece of glass fibre (cut darts or tucks if needed to make it fit) and push it gently into the wet resin with a brush. If the glass fibre



material is Chopped Strand Mat, use a stippling action - do NOT "paint" to and fro, as this tends to separate the glass fibres. Make sure the glass fibre is thoroughly impregnated with resin (keep the brush well-loaded to add more resin if necessary). Once completely "wetted-



out", use a metal laminating roller to consolidate the layer and force out air bubbles. This also forces resin through the fibres from beneath, which makes for better impregnation.



A further layer of glassfibre can then be added, wetted-out and consolidated, repeating the process. In theory, any number of layers can be built up depending on the thickness and strength required, but in practice, for most small projects, two layers will be adequate. The exposed surface of the chopped strand mat laminate will be rather rough -this will not normally matter, but, if necessary, it can be covered with a layer of surface tissue. Surface tissue is finely textured, lightweight glassfibre material. It has a smooth side and a "hairy" side. Whilst the laminate is still wet, apply the surface tissue, hairy side down, wetting out with more resin, and stipple down lightly. Surface tissue is not needed (indeed, is undesirable) on laminates made with woven glassfibre materials. By now, the resin on the brushes and tools will be starting to solidify. If left, they will shortly become totally hard and unuseable. Prevent this by washing them in Brush Cleaner (acetone) which will dissolve the resin. They must be wiped dry before re-using. Remember acetone is highly inflammable - do not smoke or use naked lights anywhere near it! It is very volatile, and tends to evaporate, so keep it in a covered container. Meanwhile, the laminate will begin to cure. It will soon reach "green stage", when it becomes quite firm, but is not yet hard. At this stage, you can trim off excess

material around the edges of the mould with a Stanley knife (once the laminate is fully hardened, it can only be trimmed with a power tool or a hacksaw with a metal-cutting blade).

When fully cured, the laminate can be released from the mould. If necessary, wood or plastic (but not metal) wedges can be used to prise out the moulding, but take care not to scratch the surface of either mould or moulding.

