

## LAMINATING TECHNIQUE

### Preparing the Mould

Unlike moulds made from "self-releasing" materials, such as polyester film, the GRP mould will need to be treated with release agents to ensure the laminate does not bond to the surface. Most release agents, are three-part systems: a primary sealer (used to seal moulds made of wood or other absorbent materials, and therefore not needed on a glassfibre mould), a release wax and a glazing agent. Some release agents are one-part systems, but these tend to be extremely expensive. To prepare a GRP mould ,

first apply up to six coats of Release Agent (Wax). Buff each coat then leave it to harden for an hour before applying the next. After the final coat has hardened, it should be covered with a water-soluble PVA solution which glazes the surface. This dries in about 15 minutes, after which the mould is ready for laminating. Moulds can, of course, be used over and over again to produce identical laminates. If a mould has been used previously, it should have a wax coating on it already. It should be washed thoroughly to remove the PVA coating, then given a single coat of wax, hardened and buffed as described above, followed by water-soluble PVA solution.



### TYPICAL RELEASE AGENTS

Different treatments are needed according to the material from which the mould is made. The following table shows the required treatment for most of the commonly-used mould materials. A plug from which a GRP mould will be taken should naturally be treated in the same way as a mould from which a GRP laminate will be taken!



#### **FOR MOULDS OR PLUGS MADE WITH:**

Wood, hardboard, plaster, clay, stone, slate, concrete

#### **RELEASE TREATMENT REQUIRED:**

Seal surface with A Release Agent of Cellulose Acetate, then apply a layer of Wax, followed by a Water soluble PVA Solution. (Note: cement or concrete must be fully cured, as its alkaline content can affect the glassfibre)

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Steel, iron, non-ferrous metals, GRP

Wax Release Agent then Water soluble PVA Solution.

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Polystyrene, acrylates

None is normally advisable as these materials are attacked by resin, although it is possible to use polystyrene foam if it is thoroughly sealed, either with several coats of solvent-free epoxy resin, or by spraying with liquid latex thinned with distilled water.

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Silicone & vinyl rubber, polythene, PVC, Polyester Film

None required (self-releasing)

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Float Glass (Surface ground glass should not be used)

Wax Release Agent then Water soluble PVA Solution .

