GELCOAT APPLICATION CHECKLIST

The following table shows a summary of points leading to good consistent application of gelcoat to a mould in a production environment.

Gelcoat Storage	• Keep gelcoat stored in original containers at appropriate temperature (~20°C is ideal). • Ensure good stock rotation. *(The older a gelcoat is, the more the low shear viscosity will have drifted, and the more prone the gelcoat will be to sagging.)* • Mix the gelcoat in the keg/drum before decanting.
Workshop & Mould Preparation	• Where possible, keep the workshop and mould temperature to ambient (around 20°C is ideal). • Ensure that the mould is clean, dry and an appropriate release agent has been correctly applied.
Gelcoat Weighing & Addition of Catalyst	• Ensure that the weighing area is clean and free from contaminants. • Accurate weighing of the gelcoat is required for catalyst dosing to be accurate. • Keep different coloured gelcoats well apart. • Add the correct (and consistent) amount of the correct catalyst to each portion of gelcoat. • Mix the catalyst into the gelcoat thoroughly with clean mixing apparatus before application begins.
Gelcoat Application	• Avoid pouring the gelcoat onto the mould surface. This will leave a colour fault on the demoulded surface. • Always use a clean brush, roller or recently cleaned spray equipment. • Avoid excessive thickness in one application. This will lead to slumping and/or tearing. • Minimise drips and runs wherever possible (through applying at correct thickness). • Avoid very thin application (<200µm) as this will lead to poor cure. • The film must not be disturbed once cure has begun (time will be dependent on catalyst level and temperature of application).
Brush Application	• Apply the gelcoat by brush in at least two directions. This helps to reduce the effect of brush-marking. • Good brushing improves the air release in a gelcoat layer *(the air release additive used in brush gelcoats relies on shear to work)*. • Laying off with a brush will help to remove air.
Spray Application	• Spray application will help to eliminate variations in thickness and give a more consistent gelcoat film. • It is important that the spray equipment is set up to give a good fan to achieve the optimum spray pattern. • Spray in even passes in a number of directions until the required thickness.
Application of the Backing System	• The back surface of the gelcoat must be kept clean and free from dust and moisture until the backing system is applied. • The backing system should only be applied after the gelcoat film is sufficiently cured. • Good consolidation of the backing system is vital to avoid blistering issues.