

Hypetex Material Handling Guidelines

Hypetex recommends the use of material handling gloves to eliminate the cross contamination from human skin and oils to the surface of the material.

Hypetex materials must be handled with caution as it displays different physical properties to normal carbon fibre. Care must be when bending or manipulate the material & avoid stretching as this can warp the weave, show 'zebra lines' and potentially lead to inconsistencies in the colour.

Carbon fibre can cause skin and eye irritation therefore proper safety wear must be worn such as gloves and safety glasses.

Automated cutting machines can be used, though it is up to customers to adjust the cutting parameters according to their equipment. Some adjustments will be required and Hypetex recommends adjusting these on a small batch of the material beforehand to best define the required parameters.

Tooling

The tools should be constructed from materials that will retain their dimensional stability at the intended processing conditions i.e., curing temperature of the resin, curing pressure, number of parts made from each tool.

For a perfect finish, the visible surfaces of the tool should avoid any visible damage mark, dent, joints, inserts, scratches. Any imperfection seen on the surface of the mould will directly translate to the same imperfection on the surface of the part.

There could be ways to improve the surface of the mould, by using surfacing films which will smoothen the small imperfections. The use of surface films should be considered during the part's design stage to compensate for its thickness for dimension critical parts. Depending on the process chosen for the curing of the part, a vacuum leak test should be performed prior to applying any material on the surface of the tool.

It is especially important that the cleaning of the mould is done properly before moving forward.

Curing

User should follow the instructions of the laminate resin TDS as recommended by the supplier. It is suggested to cure at nominal temperatures as mentioned in the resin TDS, this will provide better quality in terms of finishing thanks to the lower thermal distortion of fibres, and a smaller yellowing of the resin system.