

Hypetex Layup Guidelines

Hypetex fibres can be used in several methods including wet layup, prepreg, RTM, RIM, hot melt, resin infusion, vacuum infusion and compression moulding.

It is recommended to use vacuum infusion or prepreg for the best results.

Hypetex recommends performing debulking process of the prepreg layer alone in order to guarantee good adhesion to the tooling along with ensuring a good adhesion to the layers underneath. This debulking should be carried out even on flat surface to provide an “invisible” seam.

Debulking should be performed every four layers to limit the amount of air trapped in between the layers. Perforating the prepregged layer prior to laying them up can be done to help with air removal, this can be done using the rollers seen below.



The usage of these rollers must be done with care as there is a possibility for the fibres to break.

Make sure all mould surfaces that come into contact with the fibre is cleaned thoroughly. If any imperfections are found in the mould surface consider using a surfacing film to smoothen out any issues with the mould.

Depending on the process a vacuum leak test must be performed before the commencement of the manufacturing process.

It is recommended to apply a suitable release agent or a peel ply on to the mould surface to make the separation of the part from the mould easier. Hypetex suggests the use of PVA (Poly Vinyl Alcohol) based release agents or release films over waxes as these are easier to apply and form a sufficient barrier between the material and mould.

Resin systems

It is recommended to use either a thermoset or thermoplastic epoxy based resin.



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.

Please contact technical@hypetex.com for further technical information.