

Technical Focus Sheet: uPVC profiles

uPVC profiles

uPVC is widely used in window, door, and conservatory profiles as it is:

- very cheap
- stiff for a plastic

However longer profiles require a steel insert to be stiff enough for purpose. These have to be cut to length and fixed to the profile.



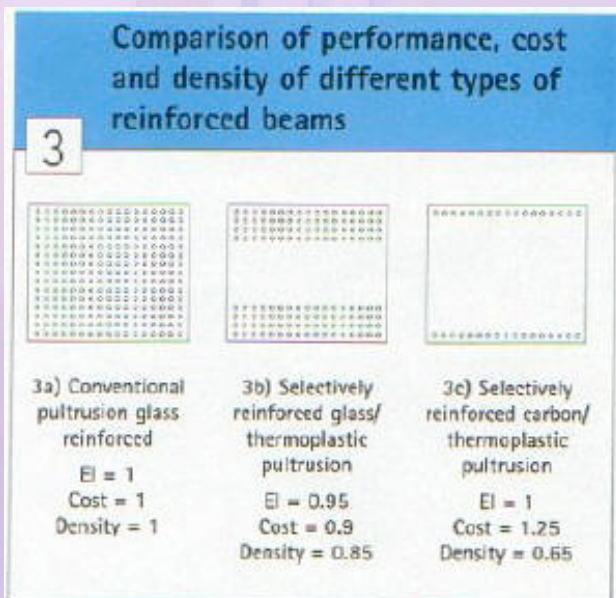
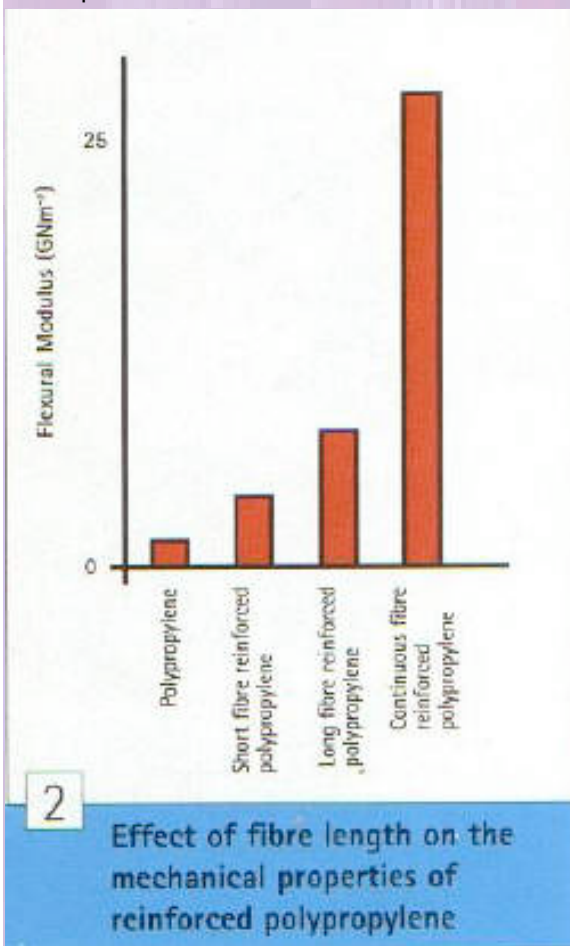
The Potential of Jonam's technology

The uPVC profile can be reinforced using continuous fibres removing the requirement for the steel insert.

The challenge

uPVC:

- is viscous-so not easy to impregnate with glass fibres
- has a narrow process window and is easily degraded, so requires enclosed bespoke tooling for each profile
- the application has narrow profit margins restricting the scope for development



The Solutions

Through a number of different projects Jonam Composites has come up with two different options:

- Make the reinforcing composite using a compatible resin and co-extrude uPVC over it.
- Specialist tooling to selectively reinforce uPVC in a profile- requires further development