

INNOVATION IN COMPOSITE MATERIALS

FINALIST: PRF Composite Materials

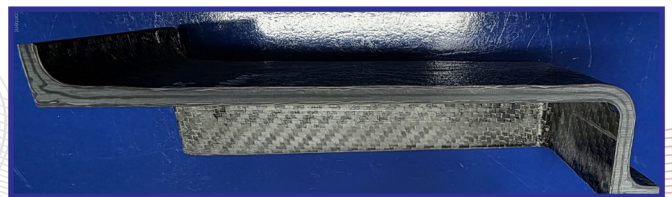
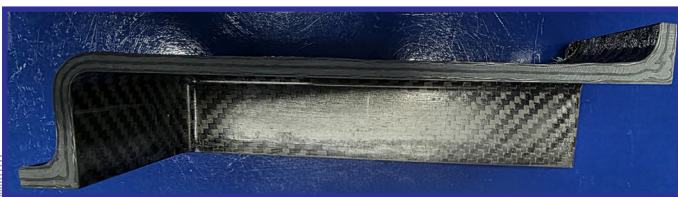
Q.tool recycled is a brand new prepreg tooling technology developed in-house by PRF Composite Materials. Developed using PRF's classic Q.tool technology (UK Patent GB2614600), Q.tool recycled offers the efficient, reliable Q.tool methodology based on the combination of PRF's RP800 epoxy tooling prepreg system and the technology's unique fabric architecture, and replaces 40% of the virgin carbon fibre content with recycled carbon fibre nonwoven mat.

Q.tool recycled offers all the proven benefits of PRF's original Q.tool technology: ~50% time/cost saved in carbon tool manufacture compared to traditional 1:8:1 systems, debulks reduced to just 1, reduced use of plastic consumables and still offering exceptional drapeability and surface finish. The material now also provides improved circularity, with the replacement of a significant percentage of virgin carbon fibre content with recycled.

Launched to the market in spring 2025, Q.tool recycled is now in manufacture. PRF believe this to be the first prepreg tooling technology to market using recycled carbon.

The biggest problem for recycled carbon is that the composites industry needs to increase high quantity demand for its output. However, constructors cannot compromise on quality or performance. PRF have focussed on resolving some of these issues, developing Q.tool recycled. The high volume throughput of carbon tools that are discarded after low service is where Q.tool recycled can make significant impact and add value for the industry - in improved circularity, reduction of carbon emissions in the production of virgin carbon fibre and reduction in landfill waste - alongside answering the constructors' needs for speed, cost-efficiency, quality and usability in the manufacture of carbon fibre tools.

Learn more at: www.prfcomposites.com



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