

# Revolutionary materials prove more than a Big Bear necessity

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One of RBD Community's Eagle Lab partners is looking forward to sharing exciting new materials, which will revolutionise how we design and build train interiors.

Big Bear is working with new thermoplastic materials designed specifically for use in train interiors, fully certified to EN45545-2 standard.

Needless to say, safety is of crucial importance when it comes to rolling stock interiors: materials have to not only withstand day-to-day use but be reliable during an emergency. Big Bear's new materials are fully certified to the stringent EN45545-2 standard, meaning in such situations they are entirely non-toxic.

Big Bear's MD, Emma Hockley, said: "Thermoplastics are a real game-changer for the industry because not only do they meet the industry material specifications, but they will allow OEMs and their clients to unlock more potential in terms of design and weight-saving opportunities. The new materials provide an alternative for metal and GRP, costing up to 25% less than GRP and half the weight of aluminium, offering lower weight, recyclability and improved aesthetics."

It is possible to choose almost any colour, making them the perfect match for any brand or style.

“Because of the way we manufacture these components, using relatively low-cost tooling, and a fast turnaround time, we can allow rail clients to pick all shapes and colours even in smaller quantities. As a result, a rail operator is not trapped into large orders, or having to wait until the rail fleet becomes dilapidated before they decide to refresh parts.”

Big Bear is a privately owned British manufacturer, with a large modern factory ideally located in the heart of the West Midlands, Droitwich. They use industry-leading vacuum forming and compression moulding systems to produce a wide range of lightweight thermoplastic components. In fact, their vacuum forming machine is the biggest in the UK. Their compression systems, meanwhile, weigh in at 250-tonnes.

Emma said the thermoplastics – with their wide range of creative implications – work well with how Big Bear does business, and their current client base in the aviation, construction and off-highway vehicle sectors. “Ultimately, we are founded on the principles of experience, quality, and innovation,” she said. “Our designers and engineers work closely with our customers from the start of any project. This means that we can assist in all parts of the process, from concept to manufacturing, and really deliver a solution.”

Big Bear will be showcasing their solutions at the Railtex/Infrarail exhibition at the NEC, Birmingham, from September 7-9. “We genuinely believe that what we are bringing to Railtex/Infrarail is something that the industry hasn’t seen before here in the UK,” Emma said. “It’s going to unlock creative freedom, as well as greatly improved aesthetics, and perhaps most importantly, cost-saving and weight saving.

“Railtex/Infrarail is the perfect place for people to meet us and see what can be done with these new-to-industry materials. We’ll be there to show examples, as well as guide people through our collaborative design and manufacture process.”



*Photo credit: Big Bear*