

How rail suppliers can support the industry's journey to net zero

December 21, 2023



*Rail & Infrastructure category specialist Anderton Concrete, which is part of the **Ibstock Group**, manufactures a wide range of concrete rail infrastructure products – including cable troughing, platform copings, signal bases, and retaining wall systems. In this guest writer feature, National Sales Manager, Neil, discusses its new, lower embodied carbon products – and explains why every supplier has a part to play in the industry's net zero efforts.*

It's no secret that rail is the most sustainable mode of transport in the UK, whether for leisure travel, commuting, or moving freight. But, if it is to realise its full potential, the industry must decarbonise. **Network Rail has set its own ambitious targets**, committing to becoming net zero by 2045 in Scotland, and 2050 in Britain. Reaching net zero will be a collaborative effort, involving not just those in charge of track and train, but the entire rail supply chain.

Every member of this supply chain has a part to play – including Ibstock, which has set its own target of a 40 per cent reduction in scope 1 and 2 carbon emissions by 2030. But, when it comes to responding, some companies are better resourced than others. Below, I'll discuss Ibstock's holistic approach to ESG (environmental, social, and governance) – including its work to decarbonise – and explain why small sustainability wins can be significant.

Removing carbon from concrete rail products

So, how should suppliers support the industry's efforts to decarbonise? For Ibstock, a manufacturer of concrete rail solutions, the answer was obvious – on a local level, we could make our products less carbon-heavy.

One example is our G-Tech platform copier, developed in conjunction with Network Rail. Our technical team were able to harness cutting-edge technology and bespoke mix designs to reduce the amount of carbon in these cement platform copings by just under 80 per cent. The result was a high-performance product that also provided a major reduction in embodied carbon.

But how did we achieve this? Simply put, by removing much of the cement content (which is hugely carbon-intensive to manufacture) from the copings, and replacing it with a more sustainable alternative. The alternative in question, GGBS, is a power industry by-product – and, while it behaves slightly differently to cement, it boasts the same strength and durability.

Today, we are selling these low-carbon platform copings into the marketplace, and have used our reduced carbon mix in the other products we manufacture – including our standard range of signal bases. Throughout 2024, we hope to have removed between 30 and 80 per cent of the carbon from most of our rail products.

Concrete is seen as carbon-heavy – and the processes used to manufacture it, old-fashioned. We're demonstrating that the material has a future, and will continue to develop innovative products as part of **Ibstock's wider ESG strategy**.

A holistic approach to sustainability

Indeed, Ibstock believes that sustainability is about more than just decarbonisation. Built around three central themes ('Addressing Climate Change, Improving Lives and Manufacturing Materials For Life), the group's ESG strategy shapes its holistic and forward-looking approach. Diversity is a priority with Ibstock working to ensure that 40 per cent of its leadership team is female by 2027. Nature is also a priority, and our sites are championing responsible estate management with initiatives like wildflower and tree planting.

And it's not just about protecting the environment. Ibstock also encourages its sites to work closely with local communities. At the Northwich site where I work, we've supported the construction of a local skatepark, donated money to the council for wildflower planting, and even contributed towards the village Christmas tree.

At a group level, Ibstock is working to reduce the amount of waste it sends to landfill, with a focus on increasing recycled content in our products. Rainwater harvesting, rather than taking it from the mains network, also reduces carbon and alleviates pressures on the mains network. Today, around 40 per cent of its concrete production is powered by harvested water.

Measures like these – coupled with our work to decarbonise everything from platform copings to retaining wall systems – are all part of a rounded approach to sustainability.

A responsibility to act

And the need to operate more sustainably is a pressing one. A decade ago, carbon reduction wasn't really on anyone's radar – but gradually, the rail industry has woken up to its importance. Today, it is working towards a common net zero goal – and every member of the supply chain has a responsibility to act.

It's been a steep learning curve – and, as discussed, some companies are better resourced than others. While keen to do their bit, SMEs might be daunted by the scale of the challenge – perhaps imagining that they must reduce their carbon footprint or roll out an electric fleet.

We believe that it's important to share knowledge about the smaller, more achievable steps they can take – things like rainwater harvesting, cutting down on printing, encouraging employees to commute by train, or even sponsoring a local football team. These small wins can all contribute to a business's overall sustainability efforts.

Our message is simple: let's share information when appropriate, rather than weaponising it against each other. We're all striving for a common goal, set by Network Rail and the wider industry; only by working together can we achieve it.

And, if we can make rail the sustainable transport mode of choice – attracting more passengers, supporting modal shift, and safeguarding the industry's future – we'll all benefit.