

British Steel delivers world firsts with enhanced Zinoco® coated rail

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British Steel has unveiled 2 world firsts with major upgrades to its Zinoco® coated rail.

When the company launched the Zinoco rail corrosion protection system in 2016 it was a revolutionary product that could withstand some of the harshest corrosive environments such as coastal lines, level crossings and wet tunnels. Rail in these areas can become contaminated with salt, water, minerals and biological matter so need a tough, durable solution, which Zinoco provides.

Now, the UK manufacturer has revealed an enhanced range with ground-breaking longer length rails with even greater protection.

British Steel's Commercial Director Rail Craig Harvey said: "Building on Zinoco's success in track, and a seven-figure investment in new equipment, we're delighted to launch the world's first ultra-long corrosion-protected rail in a single 108m piece - or 216m with a single weld.

"The new and improved Zinoco is also the world's first rail with a super-hydrophobic finish that repels water and dirt. Available in any length from 9m to 216m, the new finish enhances the protection Zinoco

offers, further reducing the frequency of rail replacement programmes, which impact on network operators and passengers.”

The new long-length Zinoco, which was developed at British Steel’s Scunthorpe headquarters, has all the benefits of its shorter counterparts, offering exceptional corrosion protection with a typical life extension of 5 to 10 times.

It achieves the highest levels of durability through excellent impact and abrasion resistance, and also provides sacrificial cathodic protection – an electro-chemical reaction which occurs when the anode sacrifices itself in favour of the cathode. The resulting flow of electrons prevents a corrosive chemical reaction.

With Zinoco coated rail, the zinc rich (anode) coating corrodes in preference to the steel (cathode), therefore preventing the steel from corroding. The zinc oxide creates a strong barrier to further corrosion – in this way the protection of the metal is guaranteed, even when the zinc layer is damaged.

Another benefit of British Steel’s long-length Zinoco is the need for fewer welds which makes installation quicker and gives the rails greater integrity. Suitable for any track environment, including third (live current) and fourth (negative) rail areas, Zinoco is available on any grade and any profile. And it has become the only rail corrosion protection system approved for use across all Network Rail infrastructure.

Craig said: “British Steel is committed to delivering cost-effective and innovative solutions to help our customers overcome the challenges they face and Zinoco is a great example of this and the world-class products we manufacture.”

Photo and video credit: British Steel