



Application Opportunity

The A633 Manvers Way is a major single carriage way linking Rotherham to Barnsley that carries heavy goods vehicles commuting to the M1. The road was showing signs of fatigue and suffering from high levels of surface noise due to aggregate fretting from the previous HRA surface course. The local authority approached SteelPhalt to provide them with a low carbon product that would not only withstand heavy goods vehicles from a nearby industrial estate but also reduce surface noise and surface spray because the road passes through a residential area.

Recommended Product

10mm SteelPave Eco+ was offered as the solution due to its durability, resistance to deformation, skid resistance and spray reduction properties.

Our Eco+ Range combines our locally sourced recycled steel slag aggregate and now incorporates a bio-binder derived from organic material which significantly reduces the carbon footprint of the product even further to help achieve net zero ambitions.

Results and Benefits

580 tonnes of material were installed on Manvers Way in 2024 which delivered noise and carbon reductions, meeting the requirements of the local authority objectives. As the material is durable, the local authority

will save on future budgets knowing it will not need to be replaced for years to come. The total carbon saved for this scheme was 12,180 kg CO₂e and road noise was reduced by circa 30%.

The installation of SMA hardstone PSV68 was included in a section of the highway, allowing comparative Grip Tester surveys to be conducted. Results were as expected, demonstrating previous independent testing. Although Steel Slag typically has a lower PSV than some natural aggregates, it's in-situ performance matches, and in some cases exceeds that of what may be considered a premium aggregate.

Carbon Data

Product	Carbon Footprint Kg CO ₂ e/tonne*	Average Surface Course Kg CO ₂ e/tonne*	Carbon Benefit Kg CO ₂ e/tonne	Carbon Benefit %
SteelPave Eco+	14	47.9	33.9	70.8%

*Value based on SteelPhalt verified EPD tool

SCRIM Data

