



ULTI PAVE R

Proven performance

ABINGDON ROAD, PADIHAM

The challenge

As part of Lancashire Council's Highways Decarbonisation Strategy, they engaged with Tarmac on how to introduce more sustainable materials into their standard road maintenance activities. The aim was to use materials with lower carbon emissions but also to maintain or enhance durability and pavement life. After exploring the range of material options with Tarmac's Technical Product Support Manager, they decided to take a multi-faceted approach, by incorporating higher proportions of recycled materials and secondary materials, while using the latest warm mix binder technology. They agreed to trial ULTI PAVE R on a local resurfacing scheme in Padiham, to the north-east of Burnley. Tarmac's ULTI PAVE R is BBA

HAPAS accredited as a Clause 942 asphalt that incorporates recycled rubber from old tyres and uses warm mix asphalt technology to reduce carbon emissions during production typically by around 8-10% compared to the equivalent.

Our solution

In addition to delivering carbon savings, using recycled rubber crumb in the mix helps to avoid export of waste car tyres that cannot be recycled in the UK: approximately one car tyre per tonne of asphalt or 750 tyres per kilometre of road, depending on layer thickness. As a warm mix asphalt, ULTI PAVE R also offers proven gains in productivity, requiring less time to reach trafficking temperatures and allowing more work to be completed within a given operating window. Warm mix

asphalts also significantly improve air quality for maintenance teams and residents by reducing site fumes by approximately 90% compared to equivalent hot mix asphalt. To further enhance sustainability, the lower layers of the carriageway would also be recycled using a cold foam mix process. This would enable around 95% of the old road to be processed and reused as a new base course material.

Results and benefits

Resurfacing work took place on the Abingdon Road using the recycled foam mix asphalt base and 160 tonnes of ULTI PAVE R surface course. The client was delighted with the finish and the significant carbon savings achieved.

The client was delighted with the outcome: “It was interesting to come onsite and see the process used for the first time on a Lancashire highway. I was quite surprised how much rubber is in the mix, it’s around one car tyre per tonne so on that basis we put 150 tyres in the road in just one day which would have otherwise gone to landfill. Overall, by using recycled materials in the lower layers and ULTIPAVE R surfacing, we have lowered the carbon footprint of this scheme by over 30%. We are really keen to reduce our carbon footprint in maintaining Lancashire’s roads and we are hoping to use this technique as part of our Highways Decarbonisation Strategy. This year in our carriageway capital programmes, we are predicted to save 150 tonnes of CO₂ through using lower carbon processes.” Phil Durnell, Director of Highways and Transport, Lancashire County Council.