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Brian Kent, technical director at Tarmac

Planet

NET ZERO

Low carbon manufacturing

Warm Mix Asphalt

For nearly 10 years Tarmac has been offering warm mix asphalt (WMA) to our customers to enable them to make valuable carbon savings and greater efficiencies in road laying projects.

Since 1 July 2022, 40 of Tarmac’s asphalt plants across the UK defaulted to warm mix for all lower layer materials as we became the first in our industry to phase out traditional hot mix asphalt for highways projects. We then also defaulted to warm mix for all delivered surface course materials (except for modified binder materials and HRA with stone content mix of 35% or lower) from 1 September 2022.

This change is expected to save around 21,000 tonnes of carbon dioxide per year and will help us to meet our net zero target before 2050.

Warm mix temperature asphalt technology has the potential to reduce the embodied carbon of asphalt by up to 15% compared to conventional hot mixes. The principle behind the technology is that lower temperatures are used to manufacture the material, using less energy and therefore emitting less carbon.

The lower temperature material also enables road projects to be delivered faster than when using traditional materials. The asphalt is delivered cooler than hot mixes, therefore takes less time to reach trafficking temperature. This means that the road can be opened up to 90 minutes earlier to traffic, reducing disruption for road users.



Brian Kent, technical director at Tarmac, said: “While warm mix technology has been widely available to our customers over the past five years, against the backdrop of the climate emergency, we are now proactively switching our plants to offer this low carbon material as our standard and preferred option.

“This is a significant sustainability-focused improvement on Edgar Hooley’s original process, but it embraces the innovative spirit of our founder which remains at the heart of our business along with our clear commitment to help the UK transition to net zero.”