

Project case study

Eurotunnel

Heidelberg Materials UK provides sustainable asphalt solution for Eurotunnel

Product

Tufflex, CarbonLock with CleanAir, produced using Era 140 warm mix process

Volume

140 tonnes

Main Contractor

Heidelberg Materials Contracting

Client

Eurotunnel Services Limited



Project description

Heidelberg Materials UK has resurfaced the entrance to the Eurotunnel service tunnel in Folkestone, Kent, using an innovative asphalt to reduce carbon emissions, enhance durability and speed up completion of works.

In collaboration with Eurotunnel Services Limited, the company recommended the use of its Tufflex asphalt with CarbonLock bio-binder containing a CleanAir additive and produced using its Era 140 warm mix process to provide a complete sustainable solution.

This alternative to the original SMA specification reduced the carbon footprint of the project by a minimum of 25 per cent (correct as of April 2026) and provided a range of additional benefits such as improved air quality and working conditions.

“Sustainability is a key commitment for Eurotunnel Services Limited, so they were open to working together to find the lowest carbon solution for this project,” said Phil Greenin, Regional Manager – Contracting at Heidelberg Materials UK.

“It is the first time that Tufflex with CarbonLock has been used at a major infrastructure facility and was also the first time our asphalt and contracting teams worked together with Eurotunnel Services Limited in a collaborative partnership.”

Overview

Heidelberg Materials UK partnered with Eurotunnel Services Limited to deliver a low carbon asphalt solution for the Eurotunnel, using Tufflex with CarbonLock to enhance durability, improve air quality and reduce emissions. The project achieved a minimum 25 per cent reduction in carbon while enabling efficient, safe delivery in a critical infrastructure environment.



It has been great to work alongside Heidelberg Materials to achieve a significant step forward in sustainable construction.”

Campbell Main, Technical Lead – Civils
at Eurotunnel Services Limited



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Tufflex asphalt offers high resistance to deformation, improving durability, and provides good skid resistance. The CarbonLock binder contains biogenic materials that absorb and store CO₂ from the atmosphere during their life. This CO₂ is permanently ‘locked’ into the asphalt, even when it is recycled at the end of its life, reducing the carbon footprint of the asphalt.

In addition, the binder also contained CleanAir, an additive which reduces the release of specific gases and particulates into the air by up to 40 per cent. This minimises the impact of production and laying on local air quality and helps neutralise odour, which is particularly beneficial for use in tunnels and ultra-low emission zones.

The asphalt was produced at the company’s nearby Allington plant using Heidelberg Materials’ Era 140 warm mix asphalt (WMA) process. This allows the material to be produced at up to 40°C lower temperature than conventional hot mix asphalt, saving fuel and helping to cut the CO₂ emissions associated with production by up to 15 per cent. The lower production temperature also improves working conditions and allows faster completion of work, which was vital for this project.

In total 140 tonnes of asphalt was used to resurface around 1,600m² at the entrance to the service tunnel and in front of the emergency response vehicle garages, with the worn out surface being removed and recovered for re-use. The work was scheduled to take place at quieter times for planned maintenance to minimise the likelihood of the asphalt needing to be trafficked prior to being completely cured, as access had to be maintained to the service tunnel at all times in case of an emergency.

The project also required the use of walking floor HGV, rather than tippers, due to the safe working height restrictions of the adjacent main tunnel high powered electricity cables.

Campbell Main, Technical Lead – Civils at Eurotunnel Services Limited, said: “It has been great to work alongside Heidelberg Materials to achieve a significant step forward in sustainable construction.

“A flexible approach and a collaborative team ethic from all parties culminated in a competitively priced carbon reducing alternative to traditional surfacing materials and the safe and sustainable delivery of this milestone project.”