

Repave is a hot in-situ road recycling process



Repave, M56 (Junction 10)

Repave is a hot in-situ recycling process for rejuvenating and resurfacing existing surface courses on carriageways and airfields. It minimises the need to remove existing material to go to landfill. Our Repave process is the only in-situ surface course recycling process that is currently available in the UK. It has been established in the industry for more than 30 years and has become a recognised solution for surface course recycling for carriageways and airfields.



Application Details

Colas successfully completed a scheme on behalf of A-one+ on the M56 at Junction 10. This section is part of the Highways Agency's Network Area 10, with A-one+ being the contracting agent. The client, the Highways Agency, was convinced that Repave would be able to perform equally to conventional surfacing and 3,300m² of a sliproad were resurfaced in two consecutive nights using this environmentally friendly process. It was the first ever Repave scheme to be carried out on a motorway in the UK.

Repave did not only show some significant savings in CO₂ and energy consumption, it was also cheaper when compared to conventional surfacing (plane off 50mm and relay 50mm of surface course) which impacted the HA's decision-making process.

Client: MAC Area 10; HA

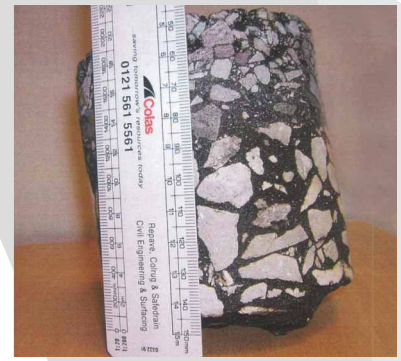
Date: November 2010

Area: 3,325m²

Duration: 2 days

Location: M56 Junction 10

Following the completion of the works, A-one+ extracted some cores from the site in order to inspect the bonding performance between the recycled surface course and the newly laid thin surface course by using the Repave process. The picture of the core (on the right) shows that a clear separation line between recycled and new material is not visible which demonstrates that a homogenous bonding between old and new material has been achieved as expected.



Total energy consumption and greenhouse gas emissions

Total energy consumption, GJ

Structure	Binder	Aggregates	Upstream Transport	Manufacture	Downstream Transport	Laying	Repave Machine	Total
Conventional	123.3	25.9	128.2	132.6	42.5	28.3		480.8
Repave	48	12.5	63.8	66.3	21.2	24.8	62.7	299.4

37.8% total energy saved using Repave

GHG emission in equivalent CO₂, tonnes

Structure	Binder	Aggregates	Upstream Transport	Manufacture	Downstream Transport	Laying	Repave Machine	Total
Conventional	7.3	1.0	9.4	8.6	3.1	2.2		31.6
Repave	2.8	0.5	4.7	4.3	1.6	1.9	4.7	20.5

35.1% total saved using Repave

Colas Limited, Wallage Lane
 Rowfant, Crawley
 West Sussex RH10 4NF
 T: 01342 711000
 F: 01342 711199
 E: info@colas.co.uk