



A57 Liverpool Road, Salford, Ralumac HT Scheme

Ralumac HT was chosen for this scheme due to it being a BBA approved double coat, single pass application. The first coat regulates and seals the existing surface, followed by a second coat using a 10mm aggregate. After compaction and embedment the total thickness of this process was 18mm thick, giving the client reduced levels compared to using a traditional overlay.

Preservation

The existing scheme surface was made up of sections of HRA that had come to the end of its lifespan. The main aim was to preserve the asset, increase the surface texture and reduce its cost-life-cycle, minimise disruption and preparatory work, vehicle movements and material taken off site.

Safety & sustainability

For safety Ralumac HT surface treatment was chosen for numerous reasons but namely to minimise the number of loose chippings, site occupation, vehicle movements, improving surface texture the appearance

of the carriageway and preventing further maintenance for another 10 to 12 years, in a significant CO₂ & energy friendly fashion.

Preparation

Through choosing Ralumac HT the client was able to treat ruts and deformities in-situ in a single pass operation which would allow the carriageway to be fully re-opened at the end of the restricted working hours, allowing immediate trafficking within 20 minutes of completion.

Key Facts:

Client: Urban Vision Partnership Ltd for Salford City Council

Value: £122,000

Timing: Start 28th August 2012 / finished 2nd September 2012 / taking 7 days to complete

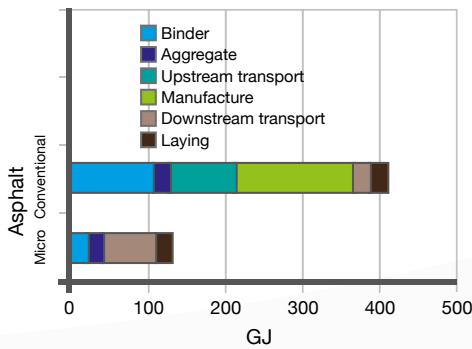
Total Energy Consumption, GJ

- Conventional – plane out 50 mm & replace with
- 14 mm AC close graded surface course
- Micro asphalt – Apply 24.9 kg/m² Ralumac
- Area – 3621 m²

Structure	Binder	Aggregates	Upstream transport	Manufacture	Downstream transport manufacture	Laying	Total
Conventional	105.8	23.4	97.0	139.0	26.0	29.5	420.7
Micro asphalt	30.6	4.4	0.2	3.4	73.7	14.1	126.3



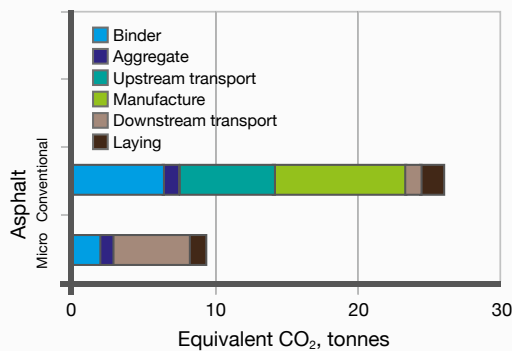
Comparison of Energy Consumption



Green House Gas Emissions

Structure	Binder	Aggregates	Upstream transport	Manufacture	Downstream transport manufacture	Laying	Total
Conventional	6.2	0.8	7.1	9.0	1.9	2.3	27.4
Micro asphalt	2.2	0.2	0.0	0.1	5.4	1.1	8.9

GHG Emission in Equivalent CO₂ tonnes Comparison of Greenhouse Gas Emissions



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Benefits

Ralumac HT was chosen over conventional surfacing due to:

- Cost saving on preparatory works
- Material cost savings
- Cold applied reducing time on site and disruption
- Reduced Traffic Management costs
- Preservation of existing materials
- High texture finish
- BBA approved

A benefit of the process includes a 2.2mm initial texture depth and a PSV of 62, with added tensile strength through fibre reinforcement. Combined with being an environmentally friendly, cold applied surface treatment, these factors made it an attractive solution for the client for use on trunk roads, dual carriageways and heavily trafficked principal routes.

Work was undertaken using Ralumac HT in seven days. A much shorter operational window in comparison to alternative conventional treatments

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