



Shell Bitumen

CELEBRATING 30 YEARS OF SERVING THE UK'S DRIVERS



PROJECT: M25 Motorway
CITY/REGION: London
COUNTRY: United Kingdom



Above: The start of the M25

KEY FACTS

Application:	Asphalt surfacing
Product Family:	Shell Cariphalte
Contractor:	Reigate Hill
Benefits:	<ul style="list-style-type: none">■ Durable■ Reliability■ Capable of handling heavy traffic

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The M25, a highly recognisable feature of England's capital as Wembley's arch, the London Eye or Tower Bridge are, has celebrated 30 years of operation in 2016.

Officially opened by Prime Minister Margaret Thatcher on October 29, 1986, the 117-mile stretch of road has catered to the needs of millions of commuters, holiday-goers and hauliers for over three decades, allowing them to avoid the narrow streets of London.

Spanning five counties – Kent, Surrey, Buckinghamshire, Hertfordshire and Essex – and encircling all of Greater London (with the exception of North Ockendon), it is Europe's second longest orbital road.

Every day approximately 150,000 vehicles venture on to the M25, a number far exceeding the 88,000 vehicles it was designed for when the road first opened. On particularly busy days the number of vehicles on the motorway has been known to swell to around 200,000 – almost two and a half times more than its original capacity.

During its construction – which began in 1975 – more than two million tons of concrete and 3.5 million tons of asphalt were required to create the motorway. However, because the M25 has been in constant use for almost a third of a century, and owing to the fact that the number of vehicles using the road has increased dramatically since it was opened, maintenance has been a constant necessity.

David Whiteoak, former Technical Manager for Shell UK Bitumen, spent much of his career working to develop modified bitumen solutions that would prolong the life not only of the M25, but numerous other roads around the UK.

David recalls this exciting project and shares some insight around its design with us

"The M25 is carrying far, far more vehicles than it was initially designed to cope with. While that's the case for most roads in the UK, it's especially true of the M25. And, because of this increased demand, Shell is constantly seeking to create advanced products to help keep the road in good condition.

"I remember one project that we carried out on the M25 with particular clarity. It was during the late '90s, and there was some maintenance work being carried out on Reigate Hill, which is a relatively steep section of road. The bitumen that was initially put down deteriorated rapidly – I'd say within a matter of weeks. Because this section of the motorway has a lot of HGV traffic travelling at low speed, the surface has to be incredibly robust or there will be a lot of damage and deformation.

The solution was to re-surface the road with a polymer modified bitumen called Shell Cariphalte DM, a product developed by Shell specifically to improve the resilience of roads that are put under immense strain. This was an immediate success. This is just one example of Shell Bitumen's ongoing work to help keep Britain moving. Maintaining and improving Britain's roads may appear to be quite a straightforward task, but there is an incredible amount of intelligent work that goes into creating solutions that will stand the test of time."

**David Whiteoak, former
Technical Manager for Shell UK
Bitumen**

FOR FURTHER INFORMATION

Please contact your Shell Bitumen representative or visit: www.shell.com/bitumen