



Shell Cariphalte AgeSafe for more durable roads. Engineered to live on.

Well-constructed roads are the lifeblood of any city, connecting people, places and businesses every day. But as the roads of today experience heavier traffic and harsher weather, regulations are also becoming more stringent, and maintenance windows are getting shorter.

A lack of proper road maintenance could lead to:



Interrupted access to education, healthcare and social events.



Safety hazards for road users.



Increase in air and noise pollution due to traffic congestion.



Disruptions to transport, trade, commerce and supply chains.

Introducing Shell Cariphalte AgeSafe

Shell's latest polymer-modified bitumen solution that's formulated to give more life to roads. By inhibiting the oxidation process, it slows the rate at which bitumen becomes stiff and brittle. This reduces the need for maintenance, resulting in greater cost savings and less disruption to road users.

Benefits of Shell Cariphalte AgeSafe*



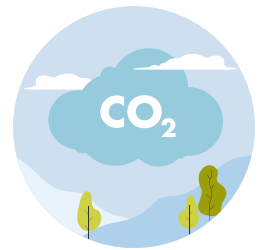
Lasts longer

- 20% longer lifespan as compared to conventional PMB
- Resists stress and permanent deformation



Reduces costs

- Extends the service life of roads by up to 3 years
- Minimises maintenance costs and resurfacing frequency



Avoids emissions

- Longer pavement life means up to 10% less CO2e emissions

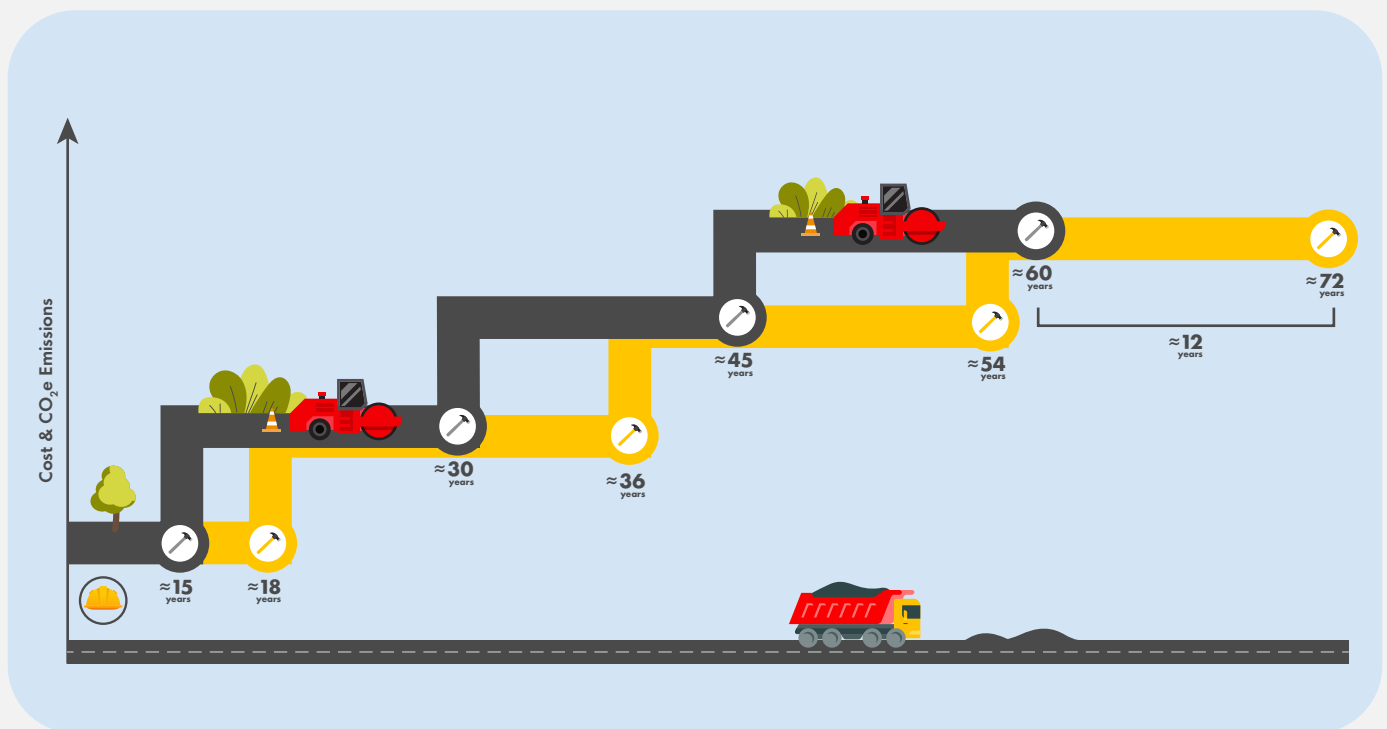
* Actual benefits may vary according to asphalt formulation and market conditions. No guarantees or warranties provided. Details of data and modelling used to calculate the benefits of Shell Cariphalte AgeSafe are available from your local Shell Bitumen Focal Point and at Technical Knowledge Guide ver.1 2023

How is Shell Cariphalte AgeSafe different from other PMBs

Shell Cariphalte AgeSafe binder showed improved ageing resistance when compared with regular polymer modified and paving grade bitumens. Testing of asphalt mixtures using Shell Cariphalte AgeSafe has demonstrated:*

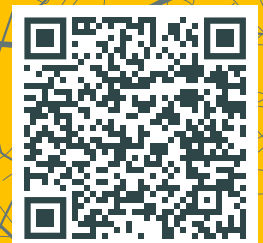
- Reduced binder oxidation
- Slower evolution of asphalt and binder stiffness
- Improved durability
- Increased fatigue life

Resurfacing intervals PMB vs Shell Cariphalte AgeSafe



Legend: Pavement Construction Resurfacing Surface course using Shell Cariphalte AgeSafe Surface course using conventional PMB

*Road trials in UK, Thailand and China are being monitored to evaluate the benefits and performance of Shell Cariphalte AgeSafe technology. Laboratory evaluations are continuing including the use of Shell's new pavement testing facility.



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