

FULTON HOGAN

Product category

Roads

Product description

Crumb Rubber Modified Bitumen

Potential annual TDP

300 tonnes

Crumb rubber hits the road in Tasmania

More than 1240 end-of-life truck tyres have been diverted from landfill, turned into crumb rubber, and used to repair roads across six Tasmanian municipalities in a partnership between Fulton Hogan and Tyre Stewardship Australia.

It is the first-time bitumen modified with waste tyre material – which included the equivalent of 40,000 beer bottles of recycled glass, as well as the end-of-life truck tyres – has been used in Tasmania. The ground-breaking project paves the way for an expansion of crumb rubber products on roads across the island.



Crumb rubber modified bitumen is more durable, longer lasting, and quieter than roads paved with conventional asphalt.

Fulton Hogan supplied six Tasmanian councils with crumb rubber modified asphalt and spray seals to use in road repairs and improvements.

Fulton Hogan worked with the six Tasmanian councils – Meander Valley, George Town, Dorset, Tasman, Central Highlands, and Sorell – to carry out road maintenance works using bitumen modified with the recycled tyre material.

Crumb rubber modified bitumen is more durable, longer lasting, and quieter than roads paved with conventional asphalt. Crumb rubber is also a cost-effective substitute for more traditional synthetic polymer binders that impart similar performances but without the same environmental benefits.

While crumb rubber modified asphalts and spray seals are becoming standard for roadworks in parts of mainland Australia, the lack of a crumb rubber processing and blending plant in Tasmania meant there was nowhere to process the island's waste tyres for use in road maintenance.



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Tyre Stewardship Australia's Low Traffic Crumb Rubber Road Fund provided more than \$85,000 for the Tasmanian project, with Fulton Hogan transporting a mobile bitumen blending plant – capable of processing 50 tonnes of crumb rubber – to Tasmania.

Fulton Hogan then supplied the six councils with crumb rubber modified asphalt and spray seals to use in their scheduled road repairs and improvements.

The demonstration project is not a long-term solution but gave the councils an opportunity to assess the performance of crumb rubber road surfaces in local conditions. It also allowed Fulton Hogan to gauge potential demand for crumb rubber product over coming years.

Both TSA and Fulton Hogan hope the project will spark wider interest from the local government sector and the Department of State Growth to justify longer term investments in Tasmanian supply chains – and ensure a sustainable option for local end-of-life tyres.

The Tasmanian Government plans to introduce crumb rubber through its State Road resurfacing program from 1 July 2022 and Fulton Hogan is looking at establishing a longer-term presence and operating capacity in the Tasmanian market. This could involve a fixed blending facility based on the island, predicated on growing demand for crumb rubber road formulations and a reliable supply of crumb rubber derived from Tasmanian tyres.

TSA CEO Lina Goodman said the demonstration project showed the 'enormous future possibilities on offer' for crumb rubber.

"With 85% of roads managed by local councils and significantly more low traffic roads found nationally, local government procurement power is critical to using resources like crumb rubber, created from the millions of used tyres generated in Australia each year, to create a better performing, longer lasting Australian road network," Ms Goodman explained.

"This commercial exploration with Fulton Hogan sits alongside TSA's active engagement with the State Government and local councils in Tasmania, seeking to bolster a deepening commitment to tyre recycling across the state."

FOR MORE INFORMATION

TSA Case Studies:

www.tyrestewardship.org.au/innovation/case-studies

TSA Market Development Projects:

www.tyrestewardship.org.au/handbooks/tsa-funded-projects-brochure/

Email: funding@tyrestewardship.org.au

