

**BORAL****Product category**

Roads

**Product description**

Light Traffic Crumb Rubber Asphalt

**Potential annual TDP**

10,000 tonnes

# Crumb rubber modified bitumen for local Victorian roads

Boral Australia has worked with the Victorian Department of Transport and the City of Greater Bendigo to bring forward the option for more affordable roads using recycled tyre material. The new crumb rubber binder asphalts specifications for low traffic roads will help councils play their part in recycling tyres, while keeping new road projects within cost tolerances.

Adding a crumb rubber binder will aid durability and resistance to cracking, while extending the working lifespan of roads and pavements compared to their unmodified alternatives. The crumb rubber works as a substitute for more traditional synthetic polymer binders that impart similar performances without the same environmental benefits.



*The new Specification 422, Light Traffic Crumb Rubber Asphalt, will allow Victorian councils the option to demand the use of crumb rubber when procuring new local roads.*

Road condition assessment ahead of LTCRA placement in Bendigo.

In previous years, the Victorian Government has prepared and encouraged the use of road specifications allowing for crumb rubber from tyres to be used as a bitumen binder in main roads. Yet these performance standards involve higher costs and greatly surpass the demands placed on lightly trafficked local roads, so they are a poor fit for minor roads managed by councils.

Addressing this gap, Boral Australia, Victorian Department of Transport and City of Greater Bendigo came together for a project co-funded by Tyre Stewardship Australia (TSA). The project developed and tested a number of asphalts designed to meet or exceed nominal specifications for lightly trafficked roads, while involving lower levels of crumb rubber additives in order to contain costs.

On completion of the relevant field trials and laboratory testing program, it was found that asphalt formulations using 0.5% crumb rubber binder could meet the relevant performance requirements. Boral and the City of Greater Bendigo will continue to monitor the three residential street test sites over the coming fifteen years, to gauge their longer term performances.



Fume free placement of LTCRA in Bendigo.



Residential streets and the typical aged pavement conditions that LTCRA can take on.

The new *Specification 422, Light Traffic Crumb Rubber Asphalt*, will allow Victorian councils the option to demand the use of crumb rubber when procuring new local roads, without needing to reference specifications that involve higher costs than otherwise. They will no longer need to face trade offs between greater use of recycled tyre content in local roads and financially responsible procurement practices.

Boral Australia is now moving to establish standard operations to mix and apply road formulations containing lower crumb rubber binder levels, in preparation for growing demand from the local council sector.

TSA and a number of key project partners are raising awareness of the new specifications to encourage uptake across councils, and help them play a role in the responsible recovery of end of life tyres.

## FOR MORE INFORMATION

### TSA Case Studies:

[www.tyrestewardship.org.au/innovation/case-studies](http://www.tyrestewardship.org.au/innovation/case-studies)

### TSA Market Development Projects:

[www.tyrestewardship.org.au/handbooks/tsa-funded-projects-brochure/](http://www.tyrestewardship.org.au/handbooks/tsa-funded-projects-brochure/)

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