

Circular Economy: Benefits of using crumb rubber from tyres in Australian roads

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Introduction:

Tyre Stewardship Australia (TSA) is a not for profit environment-oriented industry organisation set up to implement the National Tyre Product Stewardship Scheme to enhance outcomes associated with the disposal of end of life tyres in Australia.

Rubber in roads in Australia

Australia has a long history of crumb utilization in roads dating back to the 1970's. Crumb rubber is used to modify binder in production of sprayed seals and asphalt to increase flexibility and reduce the impacts of surface cracking.

Rationale for prioritization of Roads Sector

Increased consumption in the roads sector is a high priority for TSA and the tyre recycling industry because:

- Crumbed rubber provides proven benefit to the longevity and performance of roads creating life cycle cost savings
- it is a high consumer of highly refined, high quality material that supports the local tyre recycling industry
- There is a consistent domestic demand for the product on an annual basis.
- **Circular Economy:** Tyres are made to service the roads industry. Therefore, if there is a mechanism to utilise the material productively in the industry that demands their production in such high volumes, there is an additional imperative to support its utilisation.

TSA Approach to the Roads sector

TSA has worked closely with state road authorities in Victoria, WA and Queensland and partners Sustainability Victoria and Queensland Environment & Heritage Protection. This has seen TSA co fund work with the Australian Road Research Board (ARRB) and Australian Asphalt Pavement Association (AAPA).

TSA is working with the sector to 'prove' the benefits of TDP in road applications in different state specific road binder and mix types. TSA will then work with the sector to increase local production capacity to create to support uptake nationally and create a more sustainable and better performing Australian roads network.