

Sustainability Victoria media release

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Research into new uses for glass. It's a fine thing.

Glass can be reused almost indefinitely and while it is one of the oldest man made materials with a history going back more than 3,500 years, new uses are still being found.

The volatility of markets can affect how much glass can be re-used at any one time potentially leading to stockpiling of glass that people want to be recycled.

Research funded by Sustainability Victoria is finding new ways to use glass left over from your weekend party could see it end up in plastic railway sleepers, footpaths and even buildings.

Teams of scientists are working to develop new markets for the leftover broken bits, called fines, which are hard to recycle.

Sustainability Victoria's acting CEO, Carl Muller, said with old tyres and photocopier toner cartridges now added to road making material, there are clear opportunities for other products.

"We've invested more than \$2 million to develop markets development via partnerships with industry; Deakin, Melbourne, Monash and Swinburne Universities, and the Australian Packaging Covenant.

"Researchers are working on new uses for glass and plastics and while there are challenges, we're helping to create new markets and technologies, jobs and, most importantly, ensure our community has confidence in the resource recovery sector."

The future looks like this

- With rubber and plastic now used in road base Swinburne University researchers are investigating how glass and flexible plastics could also be added to the road base mix.
- RMIT is looking at new processing methods to recycle glass into household items including kitchen bench-tops, floors, wall or roof tiles.
- The University of Melbourne is looking at how to incorporate fine glass particles into lightweight concrete for pre-fabricated buildings.

The technology is being developed in partnership with PrefabAus, the peak body for pre-fabricated building construction.

Apart from using a 'waste' product pre-fabricated buildings minimise waste production by making everything to specification, and eliminate the need to cut materials to size on site.

Adding glass to the panels reduces the greenhouse gas emissions generated in the concrete-making process and reduces the need to use virgin raw materials.

If the research stacks up, Australian pre-fab products could be used globally and generate jobs and investment.

- Monash University's is looking at how flexible plastics can be used in railways sleepers. The aim is a locally made product containing 100% recycled material that can compete with international imports.

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