

## Cigarette butts baked into sustainable bricks



Using waste materials in construction is becoming increasingly common, from [carbon negative bricks](#) to [modular roof panels made of recycled packaging and agricultural waste](#). The main problem seems to be large-scale viability as most of the ideas we've seen are in development, prototype or fundraising stages. Research recently published by a team from Australia's [RMIT University's](#) School of Civil, Environmental and Chemical Engineering could provide a sustainable solution to the annual million-ton problem of cigarette butt pollution.

Cigarette butts biodegrade very slowly, and in the process, they release a variety of toxic chemicals. When incorporated into clay mixed for bricks, however, those same properties become useful. The toxins in cigarettes burn at very high temperatures during the firing process, reducing the energy needed in production by up to 58 percent. Bricks that contain a percentage of cigarette butts are also lighter weight and provide better insulation. The entire worldwide annual production of cigarettes could be offset if less than three percent of all bricks are made using the waste mix.

What other major city waste can be repurposed?

Website: [www.rmit.edu.au](http://www.rmit.edu.au)

Contact: [dr.abbas@rmit.edu.au](mailto:dr.abbas@rmit.edu.au)