

Sky's the limit for Burnaby company's new roofing material



Geoff Wensel stays dry under one of his plastic roof tiles. His company, GR Green, has developed a process using recycled plastic to manufacture roof tiles that look like slate and cedar shingles. The company was recently recognized as one of three regional finalists for a Cleantech award.

MARIO BARTEL/NEWSLEADER

By [Mario Bartel - Burnaby NewsLeader](#)

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That stylish new weathered cedar or slate shingle roof on your neighbour's house could soon be made of recycled plastic bottles and bags.

And now the Burnaby company that developed the synthetic roofing product has been recognized as a top clean tech innovator.

GR Green Building Products is one of three winners in the Pacific Northwest regional finals of the Cleantech Open, a competition to fund and foster entrepreneurs using clean technology to address energy, environmental and economic challenges. Since the

competition was founded in 2006, almost 600 companies have benefited from more than \$600 million in external capital investment.

The process to create roof shingles that look like cedar or slate from recycled plastics was developed by Geoff Wensel and Robert Suggitt, engineers with a particular expertise in composite building materials. They were experimenting in the kitchen with various formulations of plastics and limestone, a rolling pin and an oven, to come up with a material that could bend without breaking, take a nail without shattering.

“We wanted to do the roofing thing and do it right,” says Wensel.

The result they cooked up is comprised of 25 per cent recycled plastic and 75 per cent limestone, a filler commonly-used to keep the cost of building materials down. But their work was just beginning.

They submitted their shingles to a year-long process of rigorous tests of their durability and ability to withstand heat, cold, rain, wind and ultra-violet rays to get them approved for use in construction. Figuring out how to shape and colour the plastic to look like cedar or slate took almost as long.

“Plastic doesn’t degrade, it doesn’t compost,” says Wensel. “The product will last longer than the house they’re on.”

And when it’s time to replace their plastic roof, the shingles can be recycled again, making them a true “cradle-to-cradle” product that never reaches a landfill. Their process can also be used to make siding.

Wensel and Suggitt spent more than two years writing patent applications for their new process in a number of countries. Their first was recently granted in New Zealand.

So far, it’s been a seven-year journey since their “eureka” moment, and their roofs are still in the prototype stage, being installed on select display homes to show off their viability to homeowners and cost-effectiveness to builders. The shingles are manufactured in a small warehouse space and trimmed by hand. Full-scale commercial production will take more space, and money.

The \$20,000 in cash and donated services from being a Cleantech regional finalist is a nice boost, says Wensel, but he's got his eye on the national competition to be held Nov. 8 in San Jose, Calif., where the 2012 Top Cleantech Entrepreneur will win \$250,000.

More importantly, the competition will put him in touch with contacts and potential investors in the clean tech industry, says Wensel. "We're in there to get our name recognized."

To find out more about GR Green, go to their website, www.grgreen.com.