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From: Carl Blesch and Todd B. Bates via [Rutgers.edu](#)
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Recycled Plastic Lumber Invented by Pioneering Rutgers Professor

Imagine a material lighter than steel, longer-lasting than lumber and strong enough to support 120-ton locomotives.

Now imagine that material is made from milk containers, coffee cups and other plastics that we recycle.

It's called structural plastic lumber, and the ingenious, nontoxic material was invented by [Thomas Nosker](#), an assistant research professor in the [Department of Materials Science and Engineering](#) and principal investigator in the Center for Advanced Materials via Immiscible Composite Materials at Rutgers University. The late Richard W. Renfree, Nosker's graduate student who later became a Rutgers professor, [helped invent the revolutionary material](#).

"People complain about plastics because they don't degrade," Nosker said. "We found a way to turn that to our advantage with a product."

That product is increasingly used to build bridges on U.S. Army bases and elsewhere – docks, picnic tables, park benches, parking lot stops and other structures across America and overseas. It's been used to make about 1.5 million railway ties in the U.S. alone. Since each tie weighs about 200 pounds, that means roughly 300 million pounds of plastics have not ended up in landfills, won't choke marine life and won't soil beaches.

Nosker, a prolific inventor, and his colleagues have been on the leading edge of plastics research for decades. They developed several types of structural recycled plastic lumber, a standard way to test plastic lumber, fire retardants for plastic lumber and machines to make plastic lumber. All told, Nosker co-holds 28 patents or patents pending in the United States, in addition to overseas patents, reaping millions of dollars in revenues for Rutgers.

Image: A 120-ton diesel locomotive crosses plastic lumber bridge via [Rutgers.edu](#)
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