# Recycled Products

# Product: Plastic bottles

### Company:

Sonoco and Ecover Hartsville, South Carolina and San Francisco sonoco.com and us.ecover.com

## Recycled content:

25 percent post-consumer HDPE plastic

## Market:

Earth-conscious home cleaners

Chores aren't fun, but at least people can do the laundry and dishes knowing that the soap packaging treads lightly on Mother Earth.

International packaging producer Sonoco is now creating plant-based plastic bottles with 25 percent recycled content for Ecover's North American line of cleaning products, including dish soaps, laundry detergents and stain removers.



The containers are made from Ecover's proprietary blend (called Plantplastic) of plant-based high-density polyethylene (HDPE) and post-consumer recycled resins, according to Sonoco. To create the resin, sugarcane is harvested to produce sugar, which is then fermented and distilled to produce ethanol. The ethanol is dehydrated to create ethylene, which is polymerized. The resulting plastic is chemically indistinguishable from traditionally sourced HDPE and is fully recyclable.

The recycled resin is sourced from municipal curbside collection programs around the U.S., according to Sonoco. The material uses up to 90 percent less energy and emits 75 percent less greenhouse gas than petroleum-based virgin resin, according to Sonoco.

The extrusion blow-molded containers hit store shelves around the U.S. in August 2014.

# Product: ECOR building panels

#### Company:

Noble Environmental Technologies San Diego ecorusa.com

Recycled Content: 100 percent recycled fiber

#### Market:

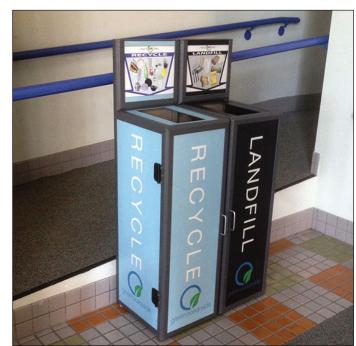
Product manufacturers and construction

San Diego-based Noble Environmental Technologies has developed a material called ECOR, which is made from 100 percent recycled material and can be used as a wood or plastic alternative in a number of applications, including recycling receptacles.

The technology was developed with the USDA Forest Products Laboratory and is described as a 3-dimensional engineered molded fiber

composite panel technology. These panels are used to replace, and/or minimize the use of traditional wood and other wood-derived products including medium density fiberboard, particleboard, cardboard and also injection molded and thermoformed plastic and other materials.

In addition to being used to construct unique receptacles, the ECOR material has been applied to furniture manufacturing, construction, packaging and a multitude of consumer products.



# Product: Activewear

Company:

Teeki Los Angeles teeki.com

Recycle content: 79 percent recycled PET

Market: Active, eco-conscious women

That PET water bottle tossed into a recycling bin could end up as a pair of yoga pants.

The California-based company Teeki uses recycled PET containers to create a line of women's pants, shorts and shirts for exercising. Stylish ones, too. The pants, which each contain material from 18 to 30 water bottles, come in various loud and wild designs, including those called Unicorn Wrangler, Purple Hazed and Wild & Free. The pants are 79 percent recycled PET and 21 percent spandex.

The fiber production process begins with water bottles being picked up at community recycling centers. They are then sorted, stripped of labels and caps, washed, crushed, chopped into flakes and melted to make pellets. The pelletized material is melted again, extruded to make fiber, crimped, cut, drawn, stretched and baled.

Teeki also notes it produces the clothing in solar-powered facilities.









