

## Design Roundup: Reusable Beer Cans, Biodegradable Pens, Toxic Soaps

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OAKLAND, CA — SABMiller will sell beer in cans that can turn into reusable cups during the World Cup in South Africa. The 13-ounce cans for SABMiller's Castle Lager brand have a removable top, turning them into cans that the company hopes people will hold onto and use for refills in order to cut down on waste as well as reduce incidences of people throwing beer cans. Reusing the beer cans would also cut down the amount of plastic and glass containers used at the World Cup events.

GOJO Industries' new Purell Green Certified Instant Hand Sanitizer, made with 100 percent ethanol, carries EcoLogo certification and was added to the U.S. Department of Agriculture's list of BioPreferred products. EcoLogo is a third-party certification program that released its standard for hand sanitizers in February. Purell is the first hand sanitizer to receive EcoLogo certification. BioPreferred is a federal program intended to increase the use and purchase of biobased products.

Arizona Iced Tea is switching to a bottle that is 20 percent lighter and takes up less space for its 16-ounce drinks. The company is using Graham Packaging's Slingshot PET (identified by plastic resin code #1) bottle. The smaller bottle allows about 350 more bottles to fit on a pallet, translating to fitting an additional 7,650 bottles in a full truckload while reducing the load's weight by more than 1,000 pounds.

Two companies have launched biodegradable writing items this month.

PaperMate has launched pens, mechanical pencils and lead/eraser tubes (right) made with biodegradable materials that break down in soil, home composting and industrial composting. The biodegradable components are made from corn sugar-based Mirel bioplastic, which is made from polyhydroxyalkanoate (PHA) as opposed to the polylactic acid (PLA) in other bioplastics. PHA is naturally occurring in some organisms and its use allows products made with it to biodegrade in ambient temperatures. The pen and pencil's barrels are biodegradable, which the inner workings and rubber grips must be tossed in the trash.

Another company has developed a pen with even more biodegradable components, but biodegradable in fewer situations. Design group DBA's first product is a pen (left) that is 98 percent biodegradable, made with bioplastic derived from potatoes and water-based inks. To degrade, it needs to be disposed of in a composting facility. The 2 percent that is not recyclable is the rollerball at the pen's tip. It contains non-toxic ink and its packaging is made of 100 percent recycled content, Forest Stewardship Council certified paper, printed with vegetable-based inks.

The chemical triclosan that has been pumped into soaps and other products for the last couple decades in order to kill germs has been creating rare forms of the toxin dioxin, reports ScienceNews. The forms of dioxin, which have not been fully studied, end up

being created after the triclosan is washed down the drain, treated in wastewater plants and exposed to sunlight

The EcoDisc, a DVD made with half the amount of plastic as typical DVDs, has been launched in the U.K. after a battery of tests found that it works in Blu-ray players, DVD players and computer drives. The EcoDisc was developed in 2006 by research and development company EcoDisc Technology AG, but the product was held back from the U.K. market until the quality assurance tests were completed by Testronic Labs. The EcoDisc is made with only one layer of polycarbonate instead of the two layers used in most DVDs. That means it is also does not need any bonding resin and is half the weight, requires half the energy in production and produces about half the carbon dioxide emissions as other DVDs. The EcoDisc is made to be used in place of DVD5, with versions that replace DVD9 and CDs in development.

Wood coatings maker Sansin Corporation released a new range of color additives for its zero-volatile organic compound (VOC) stain that add less toxicity to the stain than solvent-based dyes. When color is added to paints and stains, it can bump up the VOC content. The new Eco-Tone Color System is a group of 16 colors based on ground up pure pigments and are intended for use with Sansin's Purity Interior Zero-VOC base wood stain. Sansin said they provide "dye-like color with a fraction of the toxicity" of other dyes.

Steelcase has made PVC-free edge banding standard for 12 of its product lines of systems furniture. All 17 of the company's solid color and all seven of its wood grain 1mm and 3mm edge bands are now PVC-free. The product lines that they come

standard on are c:scape, media:scape, Universal Worksurfaces, Universal Storage, Duo, i2i tablet arm chairs, Elective Elements 6, Details AdjusTables, Kick, Currency, Groupwork, and Jenny tables and tablet arm chairs. The company has offered OVC-free edge banding in Europe since 1995. Since 2006, Steelcase has been working to remove PVC from its products. In place of PVC, the company is using a proprietary polyolefin blend that has been approved by McDonough Braungart Design Chemistry for use in Cradle to Cradle certified products.

Fired Earth, a U.K. company that makes paints, tiles and flooring, is switching the packaging for its National Trust line of paint to the Ringo can by Impress. The Ringo metal can weighs 10 percent less than other metal paint cans and is fully recyclable.

MicroGREEN Polymers, a company that makes plastics with small pockets of air inside that lighten the materials, has received \$6.8 million in a Series B round of financing to boost its staff and expand its commercial production capabilities. MicroGREEN's patented technology creates microcellular bubbles within plastics in order to expand them, making them lighter than other plastics. The company plans to offer a line of recycled PET sheets that can be turned into products and packaging, as well as its first product, a recycled-content and recyclable drink cup, later this year. The funding comes from Waste Management, WRF Capital, Northwest Energy Angels and private investors.