SIGN UP FOR GREEN

The challenge of making signage greener is getting easier thanks to an increasing array of materials that are better for the environment. Natalie Christ explores some of the options

Nearly 50 years ago, 20 million Americans protested all over the country, calling for businesses and communities to find ways to take better care of the environment and, in turn, protect human health. The protests launched an environmental movement and resulted in Earth Day; an event celebrated every spring since 1970. Since then, many companies have taken steps to help keep our planet healthy.

MONITORING BANNER MATERIALS

With the health of the environment growing each year, more and more companies are beginning to introduce greener banner solutions into the market. But what makes a material 'green'? Many of the signage solutions offered for indoor and outdoor include PVC in their base. In most cases, PVC is attached to the base fabric of the woven polyester (better known as 'scrim'). This helps to reinforce the banner beneath the surface, keeping it strong and stable.

PVC has been known to come with some negative connotations when it comes to the environment, but it can actually be green in many ways. According to ExxonMobil Chemical Company, "PVC requires less energy to manufacture than its largest volume competitors. PVC products are often more sparing of natural resources in their production, service life and end-of-life state than alternative products."

"Environmentally speaking, PVC's durability is, however, also its downfall," writes GreenAndGrowing.org. "This material is neither biodegradable nor degradable, which means that PVC-based products will retain their form for decades… Phthalates are substances added to PVC to increase its flexibility. Studying animals has revealed that some of these chemicals may cause cancer, as well as kidney and reproductive system damage."[1]

The industry has taken a stance on some of these harmful phthalates that are used in banner materials with Proposition 65.

ReSource Backlit S180 is a recycled woven polyester coated fabric that is compatible with UV and Latex printing. The material is fire-resistant and is available in 63–196ins widths

Ultraflex' Ultima EcoVantage banner material is compatible for use with solvent, eco-solvent, UV, Latex and screen printing. Available in 54–196ins widths

California passed Prop 65, or the Safe Drinking Water and Toxic Enforcement Act of 1986, to protect drinking water sources from harmful chemicals. At least once a year, the Office of Environmental Health Hazard Assessment (EHHA) publishes a list of chemicals known to cause birth defects, cancer, and other health issues. Businesses that sell goods in California must comply with Prop 65; for example, posting a warning if a product contains certain levels of a harmful chemical on the list.

GOING GREENER

If you are looking to go greener, there are various types of signage solutions out there. In recent years companies have branched out and created more materials that are better for the environment. Taking into account the products

Going green helps customers to be conscious about the side effects of harmful chemicals while protecting themselves and the environment

base, chemical composition and various tests that comply with environmental safety, the textile industry offers sustainable solutions.

Materials that are PVC-free and phthalate-free are great offerings for customers looking for an environmentally conscious solution. These types of materials are designed for outdoor advertising, wall coverings, banners and other displays. Although they do not have the typical construction of a regular PVC banner, these products offer a high quality, durable and lightweight solutions.

Ethylene vinyl acetate, also known as EVA, is another type of material composition that can be used to make products greener. Although it may sound a bit unnerving, EVA products can be incinerated to produce energy. When incinerated, EVA produces energy at a rate of 10kWh/Kg. This is comparable to the energy generated by natural gas.

"Many signage solutions offered for indoor and outdoor include PVC in their base"

Banner grade PVC, by comparison, produces energy at a rate of 1.5–4kWh/Kg. This is comparable to the energy produced by burning waste wood products at the lower end or at the upper end brown coal. To be fair, we also have to factor in that both material types are composites and contain polyester. Polyester incineration produces 4–7kWh/kg of energy. Products made with EVA are flexible and do not require the use of plasticisers, making this material phthalate-free.

If your customer is looking to go even greener, they should source products that are PVC-free and recyclable under code nr. 1 (PET). PET or PETE is a clear, tough plastic commonly used as single use bottled beverage containers. This type of plastic is easily recycled, inexpensive, lightweight and poses a low risk of leaching breakdown by-products into the environment. PET and PETE are in high demand for remanufacturers, but recycling rates are only around 20%. This can also be used as a fibre and can be collected through most kerbside recycling programmes.

PROTECT AND PROVIDE

Ultraflex has developed multiple solutions to help customers go green with its EcoVantage product line that alleviates the need for PVC and phthalates and better assists with recycling materials. Ultima EcoVantage is a phthalate-free material made from EVA-coated polyester and as such is free of Isocyanates and brominated compounds. Ethylene vinyl acetate is used in a variety of food and medical fields and is flexible enough to not require the use of plasticisers. Ultima EcoVantage has a high energy release fuel at end of life, which can be disposed of via waste to energy incineration. EcoVantage 190 is a 100% PVC- and 100% phthalate-free material that recycles under code nr. 1 (PET), allowing it to be collected through most kerbside recycling programmes.

Ultraflex has also developed the ReSource line, which repurposes polyester yarns for new products and uses. ReSource Eclipse D260 and ReSource Backlit S180 are both made from recycled yarns, are crease resistant and bright white woven polyester materials. ReSource Eclipse D260 is produced with GRS-certified yarns. GRS is an international, voluntary, full product standard that sets requirements for third-party certification of recycled content, chain of custody, social and environmental practices and chemical restrictions. ■

Natalie Christ is Marketing Coordinator at Ultraflex

*Footnote: [1]Green and Growing: https://www.greenandgrowing.org/polyvinyl-chloride-eco-*impact/

Further information:
Ultraflex Systems Inc., New Jersey, USA
tel: +1 973-627-8608
email: info@ultraflexx.com
web: www.ultraflexx.com