

Everyone's a winner

Digitalisation can drive sustainability in packaging and recycling behaviour



Andzejus Buinovskis, design engineer at global packaging manufacturer RETAL

Digitalisation supports sustainable packaging thanks to adding value without adding materials or considerable costs. That value takes many forms, from marketing and consumer engagement to raising awareness of environmental issues. Digital tools that can bring benefits to global beverage brands include laser engraving and a gaming-style recycling app, with plastic packaging manufacturers able to integrate both relatively easily and cheaply.

Laser engraving is a design tool to add value to plastic packaging, with the infrared and UV laser capabilities bringing appealing consumer engagement opportunities right at the start of the design process. The digitalisation element of laser engraving comes from its graphic design foundation, whereby the right files mean clear designs can be engraved on closures.

Andzejus Buinovskis, design engineer at global packaging manufacturer RETAL, developed specific files that highlight the possibility of laser engraving for integration in the company's portfolio of HDPE closures, which are widely used by many of the world's leading beverage brands.

Andzejus says, "I realised the potential for laser engraving on the underside of our closures when I was Retalsent files to create engraving on our closures, but the graphic files were not suited to laser engraving. The files were prepared by a professional graphic designer as they meant to be printed, but they would not translate well in laser engraving and would not have the desired result. I worked on solutions using one or two lasers and with ultraviolet, infrared or both technologies, with my knowledge of the capabilities of the machines married with my design skills. For example, the laser doesn't see shapes, but rather outlines; the laser beam follows the perimeter of the shape, so the design needs to be simplified in order to create a clear image. I worked with the creators of the machine to understand in depth what is and is not possible within its existing capabilities, like can we create an infilled area and can we engrave on light, dark and coloured closures."



An added bonus, laser engraving also adheres to the increasingly-appreciated Design for Recycling, or DfR, importance of designing effective products, specifically in this case packaging, with their recyclability and responsibility in mind right from the start, rather than relying on the consumer to make sustainable end-of-life decisions.

By meeting the marketing demands of the brand owners without adding additional materials or hard-to-recycle elements, laser engraving can offer competitions and promotional information right on the closures.

Andzejus adds, "The potential for marketing is endless with laser engraving on closures. The machine can be set to engrave random codes, codes that relate to lotteries or prizes...we can even engrave an image of the prize itself! It's fantastic because of course there is a vastly reduced risk of the consumer checking to see if they've won a prize without buying the product, as can happen with on-label promotions for example."

Digital rewards

Consumer engagement is clearly a trend that is not going away, but then neither is sustainability. Brands and consumers are simply more demanding now, but thankfully digitalisation can help both trends to be delivered smoothly. Eric Shaffner, CEO and founder of ZeLoop, has developed an app that brings ZeLooptogether digitalisation and sustainable packaging, billing this as 'the eco-friendly app that rewards you'. A circular economy-supporting app, ZeLoop is a digital engagement tool that encourages consumers to responsibly collect and recycle their plastic packaging in a gaming-style way, giving points and rewards for real-life recycling. Eric says, "ZeLoop is a new opportunity for engagement both for marketing and sustainability purposes. Everybody has a phone now - the 8-billion mark for mobile phone subscriptions was reached in 2017 - so apps can reach the maximum people without requiring extra hardware or materials. Consumers of all demographics use mobiles, so any brand can reach their target audience with an app; a mobile is often the first material comfort that people in developing countries will purchase when they have a bit of purchasing power, and being able to connect with your consumers so immediately is invaluable." Combining apps with promoting the circular economy is a clever development, with Eric noting that the 'gamification' of sustainability appeals to our natural competitiveness. He adds, "Apps offer limitless ways to interface and engage with consumers and by applying mechanisms normally used in video games to real life topics like recycling plastic packaging, ZeLoop plays on our love of winning!" Both laser engraving and responsibility-focused apps enable brands to build the social recognition between their products and their target consumer by offering engagement without demands through social media, which is particularly positive for millennial consumers that want to be active and vocal in their sustainability performance. Eric says, "Connecting consumers' beliefs with their social media is hugely valuable as they are pleased to share their values with their friends and followers. Apps like ZeLoop make a positive statement that reflects well on the consumer, which in turn supports the brand values, without adding to the cost of the product or the marketing budget of the brand." Consumer acceptance is crucial for the packaging industry, so any proven positive steps that help to maintain and enhance the relationship between consumers and brand owners must be celebrated, particularly when those innovative steps are responsible, sustainable and engaging.