

Have you ever wondered what happens to your wine bottles and jam jars once they have been taken away for recycling? A mighty 1.6m tonnes of container glass were recycled last year, according to figures from the British Glass Manufacturers Confederation, saving enough energy to launch 30 space shuttle missions. Most is made into new bottles and jars while some is used in the production of materials such as glass fibre for insulation and aggregates for road building. 'Every tonne of glass recycled into new glass saves 322 kWh (kilowatt hours) of energy and 246kg of carbon dioxide. It also saves 1.2 tonnes of virgin raw materials from being quarried,' explains David Workman, director general of the confederation.

Glass is an 'infinitely recyclable' material, according to Workman, so we can go on using and reusing it. Indeed, why use anything else? Artist Jon Lewis says: 'There's no quality difference between new and recycled glass. I'm attracted by the sustainable element and, anyway, why use new glass when there's so much recycled available?'

And it's not just making new glass from old that is on the increase. Just take a look at the worktops produced by GlassEco, made from 95 per cent crushed glass bottles that have been collected from pubs, restaurants, glaziers and building sites. This pioneering company recently found a way of recycling the toughened glass used for car windscreens and the windows of Underground trains.

WORDS **AMELIA THORPE**

Seeing Clearly

Recycled glass is a beautiful, high-quality and sustainable material that is so versatile it can be fashioned into everything from worktops, tiles and bricks to flooring and kitchen units

VALCUCINE

Italian kitchen company Valcucine claims its Artematica kitchen base unit, made of glass and recycled aluminium, is 100 per cent recyclable. Impressively, unlike traditional kitchen units with thick chipboard side panels, Valcucine has developed the structure of its kitchen horizontally so its carcass sides are made of glass that is only 10mm thick. And the entire glass base unit system has been designed to be dismantled easily at the end of its life cycle.

www.recyclablekitchen.com



'Glass is collected within a 10-mile radius to keep carbon mileage down and we do not use any heat during manufacture,' explains GlassEco managing director Bill Bradley. 'Melting or heating the glass would completely destroy GlassEco's environmental credentials,' he adds.

Bradley believes his company's environmental credentials are essential to attract what he sees as 'conscientious clients'. 'Demand for recycled materials appears to be driven by the end user,' he says. 'Consumers are asking their architects and designers to suggest sustainable materials and GlassEco is certainly experiencing increasing demand.'

Such demand is one of the reasons why Nulife Glass has been busy developing a way to remove lead from the cathode ray tube glass in old television screens and computer monitors. This will enable such glass to be recycled safely in the UK rather than being shipped abroad. But what to do with the material once it is produced? 'It's like anything, you still need good designers and artists, no matter what your material is,' explains glass creative director Candice-Elena Green, who has been working with artists, such as Paul Floyd, on potential uses of the material.

It is a point echoed by glass artist Matt Durran. 'Recycling companies are becoming increasingly efficient at recycling glass but they need the next generation of products to use the material,' he says. 'Whether it's in architectural products, lighting or tableware, recycled glass has lots of potential uses. That's the beauty of it — and also the challenge.' *idf*



JANE DORNER

Artist Jane Dorner has used recycled glass in BoneScape, a hanging artwork designed to express the fragility of life and loss. The glass is heated to a liquid state and poured into water, where it cracks and splinters like ice. The sifted and ground frit (the small pieces from which glass is formed) is then kiln formed, creating a variety of textures dependent upon the different combinations of frit and subtle changes to the firing cycle. www.janedornerglass.com

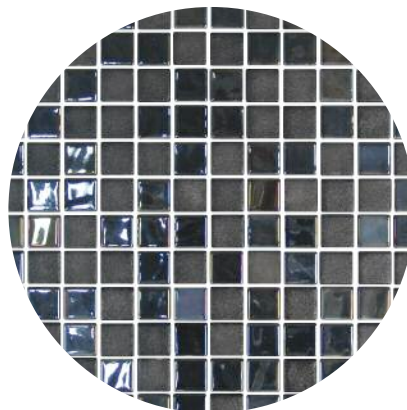
JUDE STOLL

Re-use and recycling forms the foundation of glass artist Jude Stoll's work. She collects unwanted and damaged glass stock from auctions and charity shops before transforming it in her work. She likes to think twice before using energy-consuming heat to change the glass and this piece, Allium Var Donum Redivivum, is made from cold-fused (glued) recycled objects. www.judestoll.co.uk



ADAM AARONSON

In most glass recycling processes, glass is broken up and completely re-melted. But glass artist Adam Aaronson liked the idea of giving new life to existing objects and so wanted to find an innovative way of recycling wine bottles into water carafes without losing the integrity of the original vessel. His Wine Into Water carafes are the result: each wine bottle is reshaped by hand with silver leaf added and patinated by a fierce flame. www.adamaaronson.com



ONIX MOSAIC

This leading mosaic tile producer creates tiles from crushed window glass, which is then pressed into moulds to create mosaics in 12 sizes and extensive colour ranges. Recently granted a Green Product label by Scientific Certification System, the products are guaranteed to be made of no less than 98 per cent recycled glass. Shown here are the Compo Stone Glass Negro and Opalo Negro mosaics. www.onixmosaic.com



PAUL FLOYD

Artist Paul Floyd has used Nulife's recycled glass from television screens and computer monitors to create pieces such as Monolith, shown here. Floyd has kiln cast the frit recycled glass, mixing Nulife green deleaded glass with grey front-panel glass in different ratios to create different effects.
www.pauffloyd.co.uk www.nulifeglass.com



ECO BY COSENTINO

It is good to see Cosentino, the world's leading manufacturer of quartz surfaces, announcing the launch of a surface material comprising 75 per cent recycled materials. Eco is made from old windows and bottles, granulated glass from consumer recycling practices plus porcelain and mirrors. Eco is a hard, durable surface with high stain, scratch and scorch performance. It is non-porous, does not require sealers and is available in 10 contemporary colours.
www.ecobycosentino.com

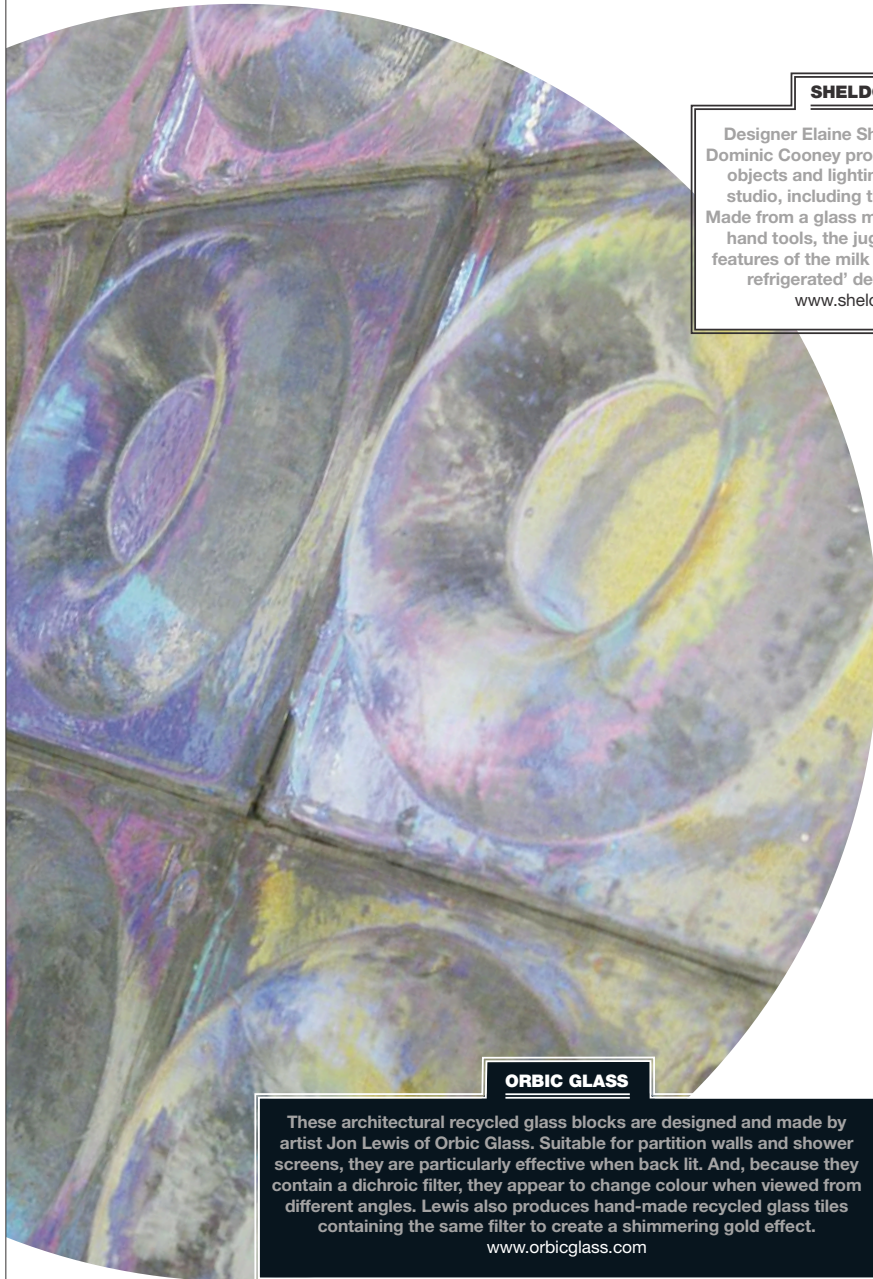
BOTTLE ALLEY GLASS

The range of products created by this design and manufacturing company includes tiles, lighting diffusers, architectural and art glass, kitchen worktops and splashbacks, all made from recycled glass. The waste glass is crushed and then thermally formed into 'new' glass products. It looks good and has been chosen by Foster & Partners for use in the Masdar zero-carbon city in Abu Dhabi.
www.bottlealleyglass.co.uk



GLASSECO

Made from 95 per cent recycled glass, this worksurface material can be made in any colour simply by varying the ratio of clear to coloured glass. White (made from recycled clear glass jars and bottles) remains a favourite but a mix of jewel colours creates an individual look. Best of all, every linear metre of GlassEco uses 100 bottles that would otherwise have been buried in landfill.
www.glasseco.co.uk



ORBIC GLASS

These architectural recycled glass blocks are designed and made by artist Jon Lewis of Orbic Glass. Suitable for partition walls and shower screens, they are particularly effective when back lit. And, because they contain a dichroic filter, they appear to change colour when viewed from different angles. Lewis also produces hand-made recycled glass tiles containing the same filter to create a shimmering gold effect. www.orbicglass.com

SHELDONCOONEY

Designer Elaine Sheldon and glass maker Dominic Cooney produce contemporary glass objects and lighting in their Staffordshire studio, including their tempting Milk Jug. Made from a glass milk bottle, reformed using hand tools, the jug retains the embossed features of the milk bottle, such as the 'keep refrigerated' detail around the base. www.sheldoncooney.com



RESILICA BY EIGHT INCH

Shards of recycled bottle-bank glass are combined with solvent-free resin to create Eight Inch's Resilica. The material can be moulded and shaped to make worktops, flooring, even furniture, while its tough, low-maintenance qualities make it known for more than just its sparkling good looks and environmentally friendly credentials. www.eightinch.co.uk



MATT DURRAN

Glass artist Matt Durran of Liquid Projects produces sculptures and installations in recycled glass and operates a mobile, biofuelled glass recycling furnace, Pulse Melt, which he takes to design events around the country. His current projects include a glistening, multifaceted strip of recycled glazing along the sides of a contemporary house boat, designed by architects SCDLP, as well as beautiful sculptures. Migration, shown here, is made of recycled fluorescent tubes and can be seen in the Hannah Peschar Sculpture Garden. www.mattdurran.com