

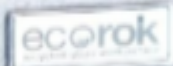


Sustainable Surfaces

Product Data Sheet 2023

ecorok from Diamik Glass is a recycled glass surface that offers an eco-alternative to mined Surface products, with an 85% recycled content, this beautiful product is manufactured in the UK using waste glass cullet that was destined for landfill.

Designers & Architects now have a sustainable surface solution that could help buildings achieve higher BREEAM certification by sourcing responsibly.



Diamik Glass ecorok™ Technical Data Sheet August 2023

Product Name: Company Identification: ecorok™

Website: Diamik Glass Ltd
www.diamikglass.co.uk

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Product description: Recycled Glass Surfaces.

Component materials: Waste & sized, glass bonded together with epoxy resin and mixed with pigments to add colour.

Additives: Defoaming Agent & Coupling Agent

ecorok™ is made from up to 85% recycled materials. The glass is 100% waste material destined for landfill which has been collected and re-processed solely by Diamik in order that we can verify its provenance. The resin is a non-emitting, non-toxic, purpose-designed material. No Energy is used in the production of Ecorok panels.

Recycled content calculation used in the manufacture of 20mm material:

COMPONENTS Averages by weight	WEIGHT (Kg/M2)	Waste Aggregate %	Waste Aggregate Average Percentage
Recycled aggregate	47	100%	85.24%
Resin & Activator	7.3	0	13.24
Pigments	0.7	0	1.27
Coupling-Defoaming Agent	0.14	0	0.25

Technical Data			
Hardness	Final Supplied	Shore D	D80
Flexural modulus of elasticity	ISO 178	MPa	1600
Elongation at maximum strength	ISO 527	%	4
Glass Transition Temperature	ISO 11359-2	Degrees C	50

Resin:

Epoxy Resins is used in countless applications to manufacture composite products. Diamik Glass combines an epoxy resin with an inert aggregate (glass) to manufacture a variety of surfaces, including worktops, wall panels and tiles. "Epoxy" is a term referring to a family of resins, usually thermosetting, capable of forming tight cross-linked polymer structures marked by toughness, strong adhesion, and high corrosion and chemical resistance. Epoxies are generally two-part systems consisting of a resin and a hardener (or activator) that are combined in specific proportions to initiate a curing process. When epoxies are combined with aggregates, such as crushed glass, the aggregates lower the cost of the composite by reducing the volume to the epoxy. The aggregates offer a wide selection of carefully created designs and can change the surface texture and increase the wearability of the surface. It is possible to change the aesthetics of the surface by using different coloured glass aggregates, and by adding coloured pigment to the epoxy resin. Many modern composition countertops are made with epoxies and aggregates. Glass aggregate greatly improves surface properties such as resistance to knife cuts and scratching.

Sourcing:

The waste raw materials used in the manufacture of ecorok™ are all sourced in the UK within a 10-mile radius of our factory. All materials are collected directly by Diamik Glass to ensure total traceability of all material. This level of control and limited use of transport reduces the carbon footprint to an absolute minimum. Our ability to source new material in a tight local area is substantial and with more and more clients choosing to take a greener option we can only expand our target to eliminate single use products.

Embodied Energy:

Due to the cold manufacturing process used to make Ecorok™ the company uses minimal energy consumption. In-house recycling measures also ensure the company uses very little water, with all water being recycled and rainwater harvested from the factory roof.

MOST IMPORTANTLY, THE MOULD-MADE MANUFACTURING PROCESS DOES NOT CREATE ANY WASTE. WE DO NOT MAKE SLABS WHICH ARE THEN CUT DOWN TO SIZE WE MAKE MOULDS TO SUIT THE SLAB REQUIREMENTS. ALL MOULD MATERIAL IS RECYCLED MANY TIMES.

Recyclability:

ecorok™ is completely recyclable at the end of its lifetime. It can be crushed and reused to make new ecorok™ products repeatedly. Please see our ISO 14021 self-declaration statement

Colour matching:

ecorok™ is produced in batches using a uniform-sourced resin. For large contracts, glass is processed and stored in suitable quantities to ensure maximum pattern and colour stability. The resin is purchased from the same supplier to the same specification. Slight variations in colour may occur but these are small, and clients must always be advised that ecorok™ is ultimately a recycled material and will never achieve the uniformity of a more-controlled manufactured product. These inherent variances become a positive feature of the product. The hand-crafted random patterns always appeal to end-users and can be presented advantageously to demonstrate green credentials by commercial clients.

Resistance to stains	BS EN ISO 10545-14:1997 - Value 5*
Slip resistance	BS7976 (pendulum)
Breaking strength & Modules of Rupture	ISO 10545 (part 4)
Impact Resistance Test	ISO 10545 (part 5)
Surface Abrasion Test	ISO 10545 (part 7)
Chemical Resistance Test	ISO 10545 (part 13)

Resistance to staining is classified in 5 values, where a value of 1 shows that the stain could not be removed and 5 indicates the stain was easily removed. A minimum requirement for glazed tiles and worktops is Classification 3.

Applications:

ecorok™ is hugely versatile and has many design surface applications including worktops, wall panels, tiles, and floor coverings. As a mould-made product the design options are endless. It is possible to incorporate logos, patterns and/or words in corporate colour schemes. We can also manufacture the material in three dimensions with moulded forms, drop-down edges and translucent sections. LEDs can be set into the material.

Range:

ecorok™ is available in a standard range of 50 colours. Diamik Glass also offers a bespoke design service to create unique products from as little as 25m². Bespoke clients are offered an unlimited palette of colour options. Changing the colour of the glass or resin creates a new look every time. Changing the size of the glass chips – or mixing different sized cullets together - is a popular option for bespoke commissions. It is also possible to add other waste-stream materials which extend the variety of decorative finishes, e.g.: sea- shells, ceramics, pottery and crushed mirrors.

Flammability:

ecorok™ is not a flammable product. If exposed to an open flame the product may deform/melt and show signs of being burnt. It will not set alight unless it comes into contact with other accelerants. The product is very safe.

Cleaning and Maintenance:

All ecorok™ worktops are supplied polished offering up to 6 levels of finish. The polishing process creates a barrier to common household stains. The three main components of our recycled glass surfaces, Glass, Resin and Pigments are all non-porous products. Sealants are not required as is often the case with many other surface materials. If customers choose to use a sealing product to ecorok™ such sealants will not cause any damage, and this is an easy process. Just wipe the product and let it sit for 20 minutes, then wipe off. The sealant will just form another stain barrier on the surface. Using a window squeegee will aid smooth application.

On average Eighty-five percent of the ecorok™ surface is glass, which is inert and impervious to stains.

Acids found in wine, lemons and vinegar could leave a surface residue if not cleaned right away. Other staining agents – like coffee, tea, beetroot, turmeric, curry powder, etc - may also leave surface stains if allowed to remain, however they will not penetrate the product. Stubborn dried on residue/surface stains can be removed using the abrasive side of a sponge pad and strong liquid detergent. We recommend cleaning regularly with a soft

cloth and mild detergent. Do not allow paint remover, nail-polish remover, solvents, oven cleaner, toilet/drain cleaners to come into contact with ecorok™ surfaces. If contact should occur with any of these materials, wipe immediately and wash off thoroughly with a mild soap solution. Rinse with water.

As a good housekeeping measure, we do not recommend that you place hot pans or dishes straight from the oven directly onto the surface of ecorok™ using a trivet or chopping board.

For any additional please contact the ecorok™ team on:



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