## Embodied Carbon Reduction Recyclable Composites

### We design our products with the environment in mind, making clever design and engineering choices that remove carbon without compromising performance.

Composite products represent a more sustainable solution that supports the industry's net-zero goals while offering inherent safety and enhanced aesthetic appeal as well as cost-effectiveness during construction and installation.

#### Let's Talk Embodied Carbon...

Whole life carbon is the cumulative total carbon emissions that arise from all stages in the lifecycle of an asset or infrastructure. Carbon emissions are largely generated from the energy needed to extract, transport, and process raw materials, and then manufacture them into products that are used to build, maintain, and renew assets and infrastructure (known as Cradle to Gate).

We are committed to providing our customers with the information they need to manage their carbon emissions. Our embodied carbon values for our moulded and pultruded Glass Reinforced Polymer range can be used to help during the planning, materials selection, design, construction and long-term management of your infrastructure.

Since the launch of our re-engineered d<sup>2</sup> Grating in 2019, we've saved over 1.3 million kilograms of raw materials. Comparing this with our former d<sup>1</sup> Grating (or the grating available elsewhere in the industry), d<sup>2</sup> has led to an amazing saving of nearly 5 million kilograms of CO<sub>2</sub>.

To offset this amount of carbon, you would have needed to plant over 700,000 trees and let them grow for ten years, which would cover an area of over 300 football fields!

If you've used our GRP grating on a recent project, we can easily calculate the amount of carbon you've saved by choosing d<sup>2</sup> Dura Grating versus the grating that's available elsewhere using our handy carbon calculator tool. Simply contact your Dura Composites representative to obtain your bespoke project calculation.

#### **Recyclable GRP Products: Only From Dura Composites**

We've embarked on a project to recycle all of our GRP. If your product is end of life, it will be recycled to make new material at our UK HQ. An industry first that we're really proud of.



# **How Sustainable is GRP?**

GRP is widely acknowledged as a material that has major advantages over more conventional options such as wood, steel and concrete. It is less energy-intensive in development and offers a superb lifecycle.

It's important to consider the whole lifecycle of the material and all its associated costs, including installation, how long it will last and what kind of maintenance (if any) it will require to keep it functioning and looking its best.

Our GRP products offer considerably low life cycle costs due to their maintenance-free, corrosion-resistant and impactresistant characteristics compared with traditional materials, and market leading products such as Dura Grating come with a reassuring 25-year warranty and a design life of up to 60 years.



A circular economy is one that keeps materials in use, at their highest value, for as long as possible. It does so through products designed to be long lasting, easy to repair and recycle, and through systems that allow for the material to be re-used, repaired or recycled. Re-use is the most economically and environmentally beneficial strategy as finished products are worth much more than the raw materials they are composed of. Direct re-use preserves the most value and embodied energy. In the case of our Dura Grating panels for example, even after they reach the end of their lifecycle in the original context, they can easily be up-cycled or repurposed in other ways as shown below.



We operate a company called Dura Upcycling Ltd which offers goods for use in additional non-standard applications as part of our commitment to upcycling and encouraging re-use and re-purposing of our materials wherever possible, taking advantage of their inherent durability and other properties.

Secondary uses include 4×4 sand ladders, caravan jack pads, stair treads, building site flooring, seedling plant separators, lorry jacks, drain covers, shelving and racking, car parking matting, and farm land access grids - the possibilities are vast and we are happy to advise all customers on their specific scenarios.

