

Eco Report



Product: Dura Composites Moulded Product

Date: 9/27/2021

General Information

Functional unit

This Eco Report gives insights into the environmental impact of 1 Dura Composites Moulded Product of 1 kg.

Content declaration

The LCA that has resulted in this Eco Report entails a cradle-to-gate analysis. Listed are materials representing more than 1% mass of the product. This factsheet is valid for the year 2021. For a full report about the used materials, please visit [Background and disclaimer](#).



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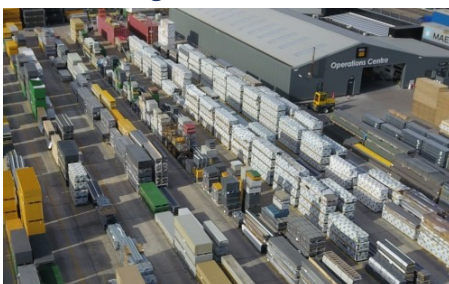
Product description

Moulded Glass Reinforced Polymer (GRP) products from Dura Composites provide an excellent guard against deterioration from industrial chemicals and environmental factors, making it a logical and cost-effective alternative to steel, aluminium, wood or other conventional materials. Dura moulded products provide the engineer with a high degree of design freedom and offers exceptional material properties for a wide range of applications. Our moulded products are manufactured using orthophthalic (Ortho) resin as standard. To accommodate all Dura Composites moulded products, this report references the carbon footprint of each kilogram (kg) of GRP, and as such must be based on a rate of kg of CO₂ per kg of GRP.

Process description

The manufacturing process is Resin Infusion (RI). The average EU data for the use of energy, water and emissions for Resin Infusion (RI) is used.

Product image



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LCA calculation rules

System boundary

This Eco Report includes the following product stages:

- Procurement, transport and processing of raw materials as well as processing of secondary raw materials serving as inputs
- Production of the composite parts

Background data

The relevant background datasets were taken from the databases in the SimaPro 8.0.2 software, supplemented by industry data obtained by completed questionnaires. For a full report about the used methodology and background data, please visit [Background and disclaimer](#)

Environmental score

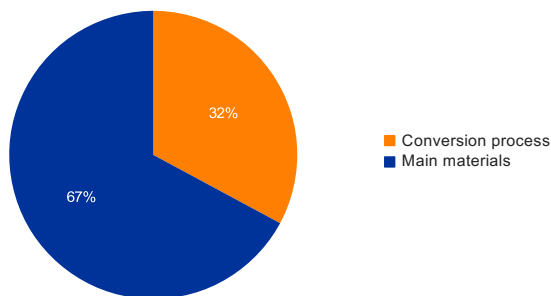
Carbon footprint and Cumulative energy demand (CED)

The carbon footprint (calculated with GHG Protocol, v1.01) of 1 Dura Composites Moulded Product is equal to 3.80 of kg.

The cumulative energy demand (calculated with CED 1.09) of 1 Dura Composites Moulded Product is equal to 68.60MJ.

The following figures show the environmental impact of the product.

Carbon Footprint



Carbon Footprint:

3.80 kg

Cumulative energy demand:

68.60 MJ

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The International Reference Life Cycle Data Systems (ILCD)

The total score of 1 Dura Composites Moulded Product is calculated with the ILCD 2011 midpoint+ (v1.06) methodology.

Category	Amount	Unit
Climate change	3.76e+0	kg CO2 eq
Ozone depletion	6.99e-7	kg CFC-11 eq
Human toxicity, non-cancer effects	5.29e-7	CTuh
Human toxicity, cancer effects	1.91e-7	CTuh
Particulate matter	2.35e-3	kg PM2.5 eq
Ionizing radiation HH	1.68e-1	kBq U235 eq
Ionizing radiation E (interim)	3.25e-6	CTUe
Photochemical ozone formation	2.02e-2	kg NMVOC eq
Acidification	2.14e-2	molc H+ eq
Terrestrial eutrophication	3.53e-2	molc N eq
Freshwater eutrophication	1.42e-4	kg P eq
Marine eutrophication	3.38e-3	kg N eq
Freshwater ecotoxicity	7.83e+0	CTUe
Land use	3.74e+0	kg C deficit
Water resource depletion	2.67e-3	m3 water eq
Mineral, fossil & ren resource depletion	7.24e-5	kg Sb eq

This Eco Report is based on European Industry average figures. Thirdparty verification has not been performed and this report is not an Environmental Product Declaration (EPD). Environmental declarations from different programs may not be comparable.