# Safety Data Sheet (SDS)

d<sup>2</sup> Dura Grating

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## **Product Description**

Glass Reinforced Polymer (GRP) d<sup>2</sup> Dura Grating is produced from glassfibres laminated together using an Orthophthalic Polyester Resin system and a gritted finish.

It is resistant against a wide range of chemicals and temperature spectrums as shown in the table on page 3 of this document. Material samples are available on request, along with a copy of our product-specific data sheets. Other resin types are available by special order.

## **Product Applications**

Common applications for d<sup>2</sup> Dura Grating include walkways, gantries, gully covers, service risers, access platforms, stair treads, ramps, bund flooring, roof walkways, fencing, gates, trash screens, pontoons, mezzanines and low-rise balcony flooring.

## **Material Identification**

Chemical Name:	Fibreglass Reinforced Polyester
Common Name:	GRP (Glass Reinforced Polymer, Fibreglass)
Product Identification:	d² Dura Grating

## **Product Composition**

Glassfibres, thermosetting plastic resin, catalysts, styrene, aluminium oxide extenders, pigments, fillers. Components are chemically and thermally cured and bonded together.

## **Breakdown of Composition**

Glassfibres	Thermosetting Resin	Extender	Filter	Pigment	Catalyst	Fire Retardant Additive	UV
30.1%	32.6%	32.6%	2.2%	0.7%	0.7%	0.7%	0.3%

#### Colours

Our most common d<sup>2</sup> Dura Grating RAL colours are as follows:

Dura Colours	RAL Number
Dark Grey 🌑	7043
Yellow 🥚	1012
Green	6035

## **Hazard Identification**

None by contact. Dust produced by cutting or grinding can penetrate pores and skin causing itching. Avoid breathing dust, skin contact or dust inhalation when cutting. People with a condition that could be aggravated by dust should avoid cutting or grinding.

The product, in its final state, is not classifiable as dangerous element according to the directive 67/548/CEE and following adjustments.

## **First Aid Procedure**

Skin - shower with water and soap. Eyes - flush with sterile eye wash solution.

## **Fire Fighting Measures**

Use standard extinguishing equipment, water, foam, A, B or C fire extinguishers. Produces black smoke while burning, carbon particles. Use air respirator.

## Unlocking the Power of Composites<sup>™</sup> ≫

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## Handling & Cutting Guidance

Wear masks and goggles when cutting or grinding. Cover exposed parts of the body. Wear gloves when moving or lifting. Use diamond tipped tools for cutting. There is the possibility of minor cuts from exposed edges – therefore it is recommended cut 5 gloves are worn. Flat sheets should be carried vertically to avoid sag. It is advisable to perform manual handling and P.P.E assessments prior to use.

## **Cleaning & Maintenance**

Dirt and debris can easily be removed using a stiff brush or pressure washer and should be carried out on a regular basis. It is always advisable to test any cleaning product before starting the cleaning procedure. This can be done on an inconspicuous area of the installation, or if preferred, a product sample can be sent to you for testing purposes. If using a detergent, please ensure that it is free of ingredients that may pose health risks for people, pets or marine and aquatic life.

Installed products should be checked on a regular basis. Circumstances will vary, based upon the volume of foot traffic, but as a guide; monthly inspections are advisable and all fixings should be checked to ensure any clips/ clamps have not become loose.

## Waste Disposal

Product is not considered a hazardous waste. Abide by local laws and procedures. Safely dispose of any offcuts as per local laws or return to Dura Composites for re-use. Do not burn. Treat as construction waste. If unsure always consult your local governing body/ council.

## **Sustainability**

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

With any material it's important to consider the whole lifecycle 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.

Dura Composites' GRP products offer considerably low life cycle costs due to their maintenance-free, corrosionresistant and impact-resistant characteristics compared with traditional materials, and market leading products such as d2 Dura Grating come with a reassuring 25 year warranty and a design life of up to 60 years.

We have achieved ISO 14001 certification, the International Standard for environmental management which supports organisations in reducing their environmental impact and are committed to offering a recycling solution for our GRP materials and those of the wider industry by 2024.

Within a circular economy, re-use is the most economically and environmentally beneficial strategy. Finished products are worth much more than the raw materials they are composed of and direct re-use preserves the most value and embodied energy.

In the case of our Dura Grating panels for example, even after they have been used for their intended purpose and reach the end of their lifecycle in the original context, they can easily be up-cycled or re-purposed in other ways.

Dura Composites operates a company called Dura Upcycling Ltd which offers goods for use in additional nonstandard 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 on specific scenarios.

## Warranty

25 year limited warranty available. Please register your product with us within 30 days of your invoice date. Visit www.duracomposites.com/warranty for full details of warranty programme and any exclusions.

#### **Chemical Resistance**

The chemical resistance information for our Orthophthalic d<sup>2</sup> Dura Grating range is shown overleaf. d<sup>2</sup> Dura Grating can be made of different resin systems to achieve specific chemical resistance if required. Please contact us on 01255 423601 for more information. All information is correct at time of publication but may be subject to change without notice.

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## **Chemical Resistance Data Table**

Chemical	Percentage of Mass Concentration	Recommended Service Temperature in °C
Acetic Acid	50	20
Aqueous Ammonia	28	Not Recommended
Aluminium Hydroxide	100% or saturated solution	Not Recommended
Ammonium Bicarbonate	100% or saturated solution	Not Recommended
Ammonium Chloride	100% or saturated solution	60
Ammonium Sulphate	100% or saturated solution	50
Benzene	-	Not Recommended
Benzoic Acid	100% or saturated solution	-
Chlorine, Dry Gas	99	Not Recommended
Chlorine, Wet Gas	100% or saturated solution	Not Recommended
Chromic Acid	20	Not Recommended
Copper Chloride	100% or saturated solution	60
Copper Cyanide	100% or saturated solution	Not Recommended
Ethylene Glycol	99	40
Ferric Chloride	100% or saturated solution	60
Ferrous Chloride	100% or saturated solution	50
Gasoline	99	35
Glucose	99	Not Recommended
Glycerine	99	60
Hydrobromic Acid	25	Not Recommended
Hydrochloric Acid	<10	Not Recommended
Hydrochloric Acid	20	Not Recommended
Hydrochloric Acid	37	Not Recommended
Hydrogen Peroxide	30	-
Kalium Nitrate	99	40
Lactic Acid	99	40
Manganese Sulphate	100% or saturated solution	45
Natrium Hydroxide	10	Not Recommended
Natrium Hydroxide	25	Not Recommended
Natrium Hydroxide	50	Not Recommended
Nitric Acid	5	25
Phosphoric Acid	85	Not Recommended
Potassium Dichromate	99	40
Potassium Nitrate	100% or saturated solution	40
Propylene Glycol	99	40
Sodium Cyanide	100% or saturated solution	-
Sulphuric Acid	25	20
Vinegar	99	30
Water, Distilled	99	25
Water, Fresh	99	40
Zinc Sulphate	100% or saturated solution	45

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