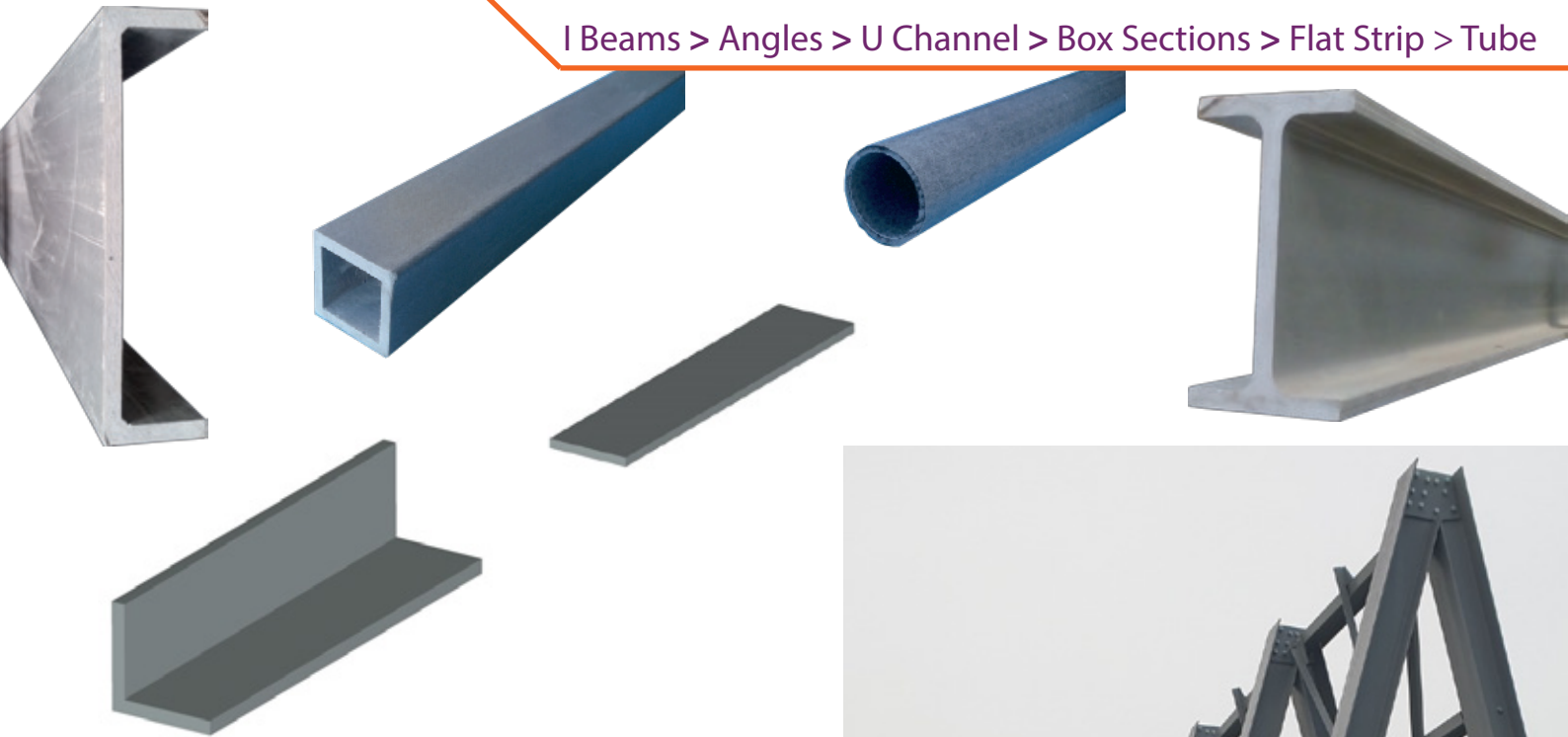


## GRP Profiles

I Beams > Angles > U Channel > Box Sections > Flat Strip > Tube



## Introduction

Lockinex UK Ltd offer a large range of GRP profiles to suit your requirements. Various lengths, thicknesses and colours are available with additional cutting and drilling services also available.

## Application

Our GRP profiles are generally used to construct various structures such as GRP stepovers, platforms, supports, frames etc. They also offer higher levels of corrosion resistance over steel products and are suited to marine, food processing, water treatment and other high corrosion environments. The non-conductive properties of GRP also mean they are commonly used in the rail and electrical power industry.

## Composition & Manufacture

The GRP profile sections are made from glass reinforced isophthalic polyester resin reinforced with E glass fibre and including continuous strand mat and a polyester surface veil as the surface layer. This combination gives excellent corrosion resistance, UV resistance and weatherability.

The standard BS EN 13706 – Specification for Pultruded Profiles, defines two grades of structural profiles. All Gripatex structural profiles with a wall thickness of over 5mm thick meet the higher performance E23 grade while those at 3-5mm wall meets the E17 grade.

The table below shows the minimum properties to comply with the two grades defined in BS EN 13706.

	Units	Property Data	
		E 23 Grade	E 17 Grade
Full section modulus	GPa	23	17
Tensile strength (axial)	MPa	240	170
Tensile strength (transverse)	MPa	50	30
Tensile modulus (axial)	GPa	23	17
Tensile modulus (transverse)	GPa	7	5
Flexural strength (axial)	MPa	240	170
Flexural strength (transverse)	MPa	100	70
Inter-laminar shear	MPa	25	15
Pin bearing strength	MPa	70	50

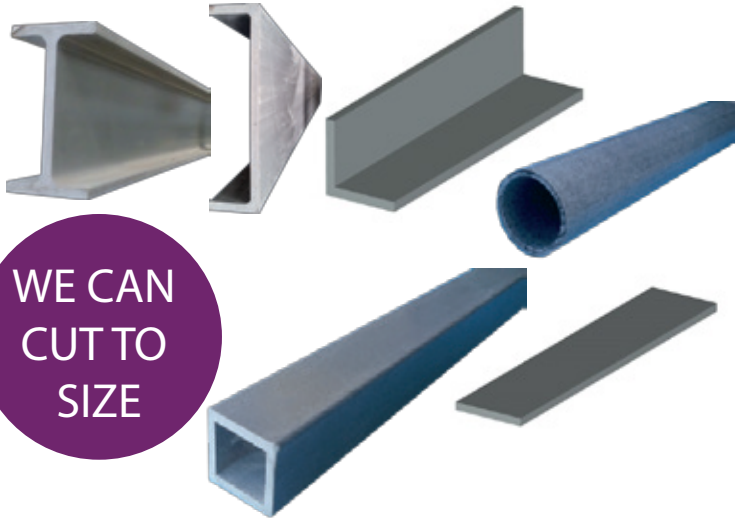
## Additional generic physical property data

Property	Units	Typical Value
Density	g/cm <sub>3</sub>	1.9
Barcol hardness	3	50
Water absorption	%	1.0 max
Electrical strength	kV/mm	5-10
Coefficient of thermal expansion	Deg C x 10 <sup>-6</sup>	6-10
Coefficient of thermal conductivity	W/m deg C	0.3-0.35

## Cutting & Drilling

Lockinex UK Ltd offer a full GRP profile cutting and drilling service. Straight cuts, mitred cuts and pre-drilled holes are all available.

Please contact us on the details shown at the bottom of the page to discuss your cutting and/or drilling requirements and obtain a quote.



## Other GRP Products

We provide a wide range of other GRP products that compliment our GRP profiles range, readily available from stock.

All other GRP products and brochure downloads are available online at [www.lockinex-store.com](http://www.lockinex-store.com)

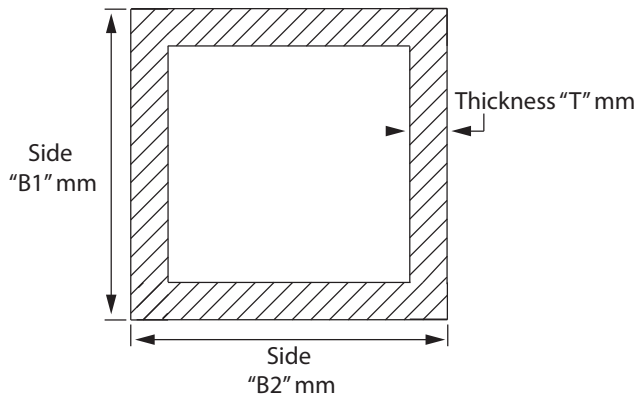
### GRP Key Clamp, Handrails & Flooring



## Design, Build, Deliver

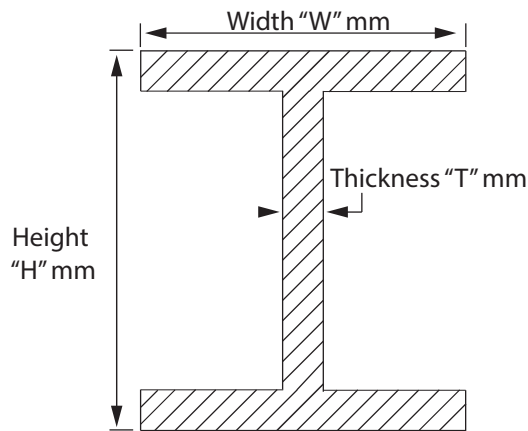
Using our full range of GRP products (GRP grating/flooring, GRP profiles & GRP handrail systems) along with our in-house design and cutting facilities, we are able to offer the design and manufacture of various GRP structures. Please contact us on the details shown at the bottom of the page to discuss your requirements and obtain a quote.





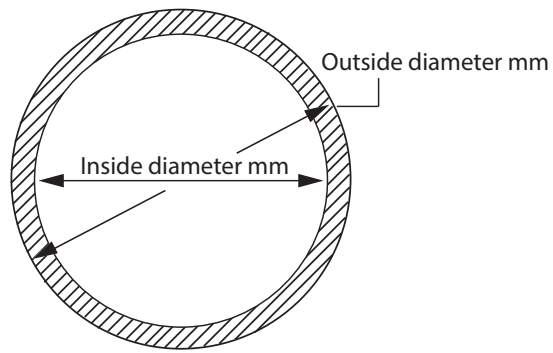
### Box Section

Side (b1) mm	Side (b2) mm	Thickness (t) mm	Weight kg/m	Colour
25	25	3	0.55	Grey
38	38	3.2	0.8	Grey & Yellow
38	38	5	1.24	Grey & Yellow
44	44	6	1.7	Grey & Yellow
51	51	3.25	1.13	Grey & Yellow
51	51	6.35	2.17	Grey & Yellow
60	60	4.25	1.85	Grey & Yellow
76	76	6.35	3.56	Grey
101.6	50.6	6.35/3.25	2.34	Grey
101.6	101.6	6.35	4.6	Grey



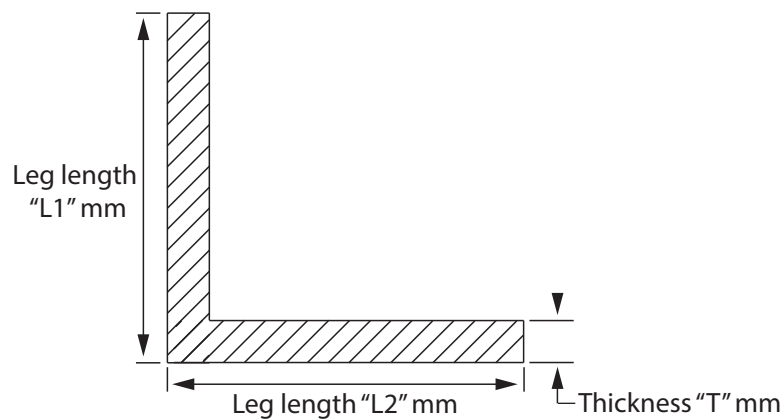
### I Beam

Width (w) mm	Height (h) mm	Thickness (t) mm	Weight kg/m	Colour
70	120	8	3.77	Grey
76	152	6.35	3.58	Grey
80	150	10	5.71	Grey
100	200	9.5	7.2	Grey
200	200	10	11.02	Grey



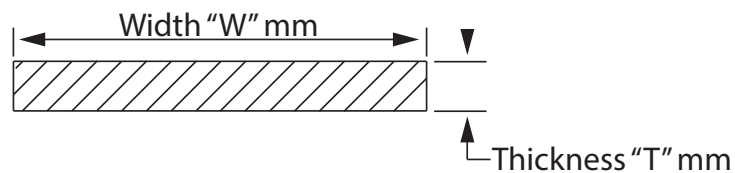
## Round Tube

Outer diameter (mm)	Inner diameter (mm)	Weight kg/m	Colour
31	25	0.54	Grey & Yellow
38	32	0.62	Grey & Yellow
50	40	1.3	Grey & Yellow



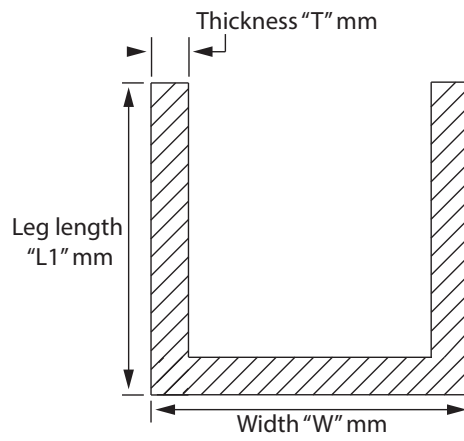
## Angle

Leg length (L1) mm	Leg length (L2) mm	Thickness (t) mm	Weight kg/m	Colour
25	25	3	0.27	Grey
50	50	3	0.55	Grey
50	50	5	0.96	Grey
51	51	6.35	1.15	Grey
60	60	8	1.75	Grey
75	75	10	2.7	Grey
100	100	8	2.95	Grey



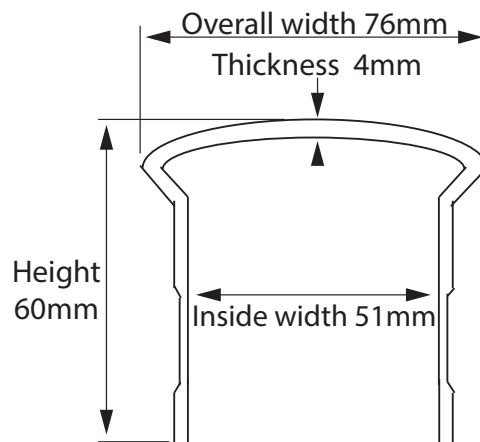
## Flat strip

Width (w) mm	Thickness (t) mm	Weight kg/m	Colour
40	5	0.38	Grey & Yellow
80	8	1.2	Grey
926	3.1	5.58	Grey

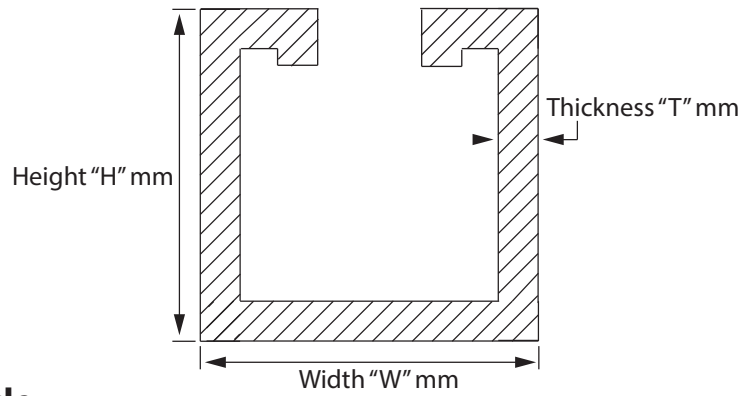


## U Channel

Width (w) mm	Length (L) mm	Thickness (t) mm	Weight kg/m	Colour
50	30	4	0.75	Grey & Yellow
76	25	6.35	1.25	Grey
76	35	5	1.29	Grey
100	50	6	2.18	Grey
150	50	6	2.75	Grey
200	60	8	4.68	Grey
200	60	9.5	5.74	Grey
280	70	12	9.27	Grey

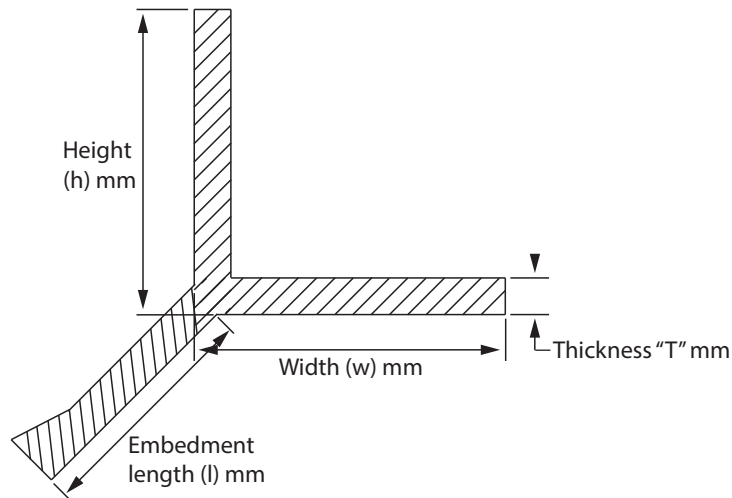


Dimensions (mm)	Weight kg/m	Colour
76 x 50	76 x 50	Grey & Yellow



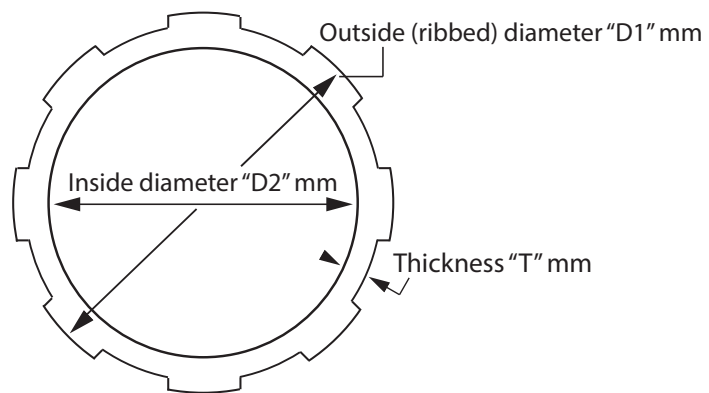
### Unistrut type profile

Height (H) mm	Width (W) mm	Thickness (T) mm	Weight kg/m	Colour
41.5	41.5	3.5	0.92	Grey



### Embedment angle

Embedment length (l) mm	Height (h) mm	Width (w) mm	Thickness (T) mm	Weight kg/m	Colour
35	35	55	5	1.21	Grey



### Ladder rung

Outside (ribbed) dia. (d1) mm	Inside (ribbed) dia. (d2) mm	Thickness (T) mm	Weight kg/m	Colour
34.5	25.5	3.25	0.67	Grey & Yellow