GREEN STEEL GRADES AND SPECIFICATIONS

OVERVIEW OF GREEN STEEL

Green Steel is a lower carbon alternative to conventional structural steel produced using more sustainable manufacturing methods designed to reduce carbon emissions and environmental impact. Depending on the production route and material source, Green Steel may be manufactured using recycled steel content, electric arc furnace technology, renewable electricity, reduced carbon remelting processes or other verified low-emission production methods.

Green Steel retains the strength, durability, weldability and structural performance required for demanding construction, infrastructure, engineering, manufacturing, transport, energy, architectural and industrial applications. It is increasingly specified for projects where environmental performance, responsible sourcing and embodied carbon reduction are important selection criteria.

Green Steel is widely used throughout the construction, infrastructure, engineering, manufacturing, transport, energy, architectural and industrial sectors. Typical applications include structural frames, beams, plates, hollow sections, fabrications, support systems, machinery components and supplied-to-order lower carbon steel for various developments.

Chargentum supplies Green Steel Plates, Universal Beams, Universal Columns, Circular Hollow Sections, Rectangular Hollow Sections, Square Hollow Sections, Flat Bars, Channels and Square Bars in a comprehensive range of sizes for customers across the UK. Materials are supplied from certified lower-carbon steel mills with available Environmental Product Declarations, mill certification and verified sustainability information where applicable.

GREEN STEEL PRODUCT TYPES

Product	Typical Green Steel Form	Typical Applications
Green Steel Plate	Lower Carbon Structural Plate	Fabrication, Structural Components, Machinery and Equipment, Plate Work
Green Steel Universal Beams	Lower Carbon Structural Beam	Building Frames, Floor Systems and Bridges, Heavy Structural Supports
Green Steel Universal Columns	Lower Carbon Structural Column	Building Frames, Heavy Structures and Industrial Structures
Green Steel Circular Hollow Section	Lower Carbon CHS	Structural Frameworks, Columns, Trusses and Fabricated Structures
Green Steel Rectangular Hollow Section	Lower Carbon RHS	Building Frames, Structural Supports, Machinery and Fabrication
Green Steel Square Hollow Section	Lower Carbon SHS	Frames, Posts, Architectural Structures and Engineering Applications
Green Steel Flat Bar	Lower Carbon Flat Steel	Brackets, Supports, Frames, Fabrication and General Engineering
Green Steel Channel	Lower Carbon Structural Channel	Frames, Supports, Platforms, Structural Support and Fabrication
Green Steel Square Bar	Lower Carbon Solid Bar	Engineering Components, Machinery, Machining and Structural Applications

Green Steel Features and Benefits

- Lower carbon steel produced using more sustainable manufacturing methods
- Supports embodied carbon reduction and responsible material procurement
- Available with verified Environmental Product Declarations where applicable
- Suitable for structural, construction, fabrication and engineering applications
- Excellent strength, durability and long-term structural performance
- Dual weldability and formability, subject to the applicable grade and standard
- Available in plates, beams, columns, hollow sections, flats, channels and squares
- Recycled steel content may be incorporated depending on the manufacturing route
- Full mill test certification available
- Suitable for projects targeting lower carbon construction objectives
- UK delivery available

STANDARD GREEN STEEL GRADES

Chargentum supplies Green Steel Plates in standard grades manufactured to recognised structural steel standards. The available grade depends on the product form, dimensions, mill source and certified lower carbon production route.

Grade	Typical Standard	Minimum Yield Strength*	Typical Applications
S235	EN 10025	235 MPa	General Fabrication, Structural Components and Light Construction
S275	EN 10025	275 MPa	Structural Fabrication, Plate Work, General Engineering Applications
S355	EN 10025	355 MPa	Heavy Structures, Bridges, Industrial Projects and High-Strength Applications
S355J2	EN 10025	355 MPa	Structural Elements Requiring Improved Impact Performance
S355J0	EN 10025	355 MPa	General Structural Fabrication and Construction
S355J0H	EN 10210 / EN 10219	355 MPa	Circular Hollow Sections, Frames and Load-Bearing Fabrications

*Typical minimum yield strength values may vary according to material thickness, product form and applicable standard.

TYPICAL CHEMICAL COMPOSITION OF GREEN STEEL

The chemical composition of Green Steel is determined by the applicable grade and standard. Lower carbon production routes primarily in the manufacturing process and associated environmental impact rather than a different chemical equation.

Element	S235	S275	S355	Function
Carbon (C)	≤0.17%	≤0.21%	≤0.24%	Strength and Hardness
Silicon (Si)	≤0.50%	≤0.50%	≤0.55%	Deoxidation and Strength
Manganese (Mn)	Typical ≥1.40%	Typical ≥1.50%	Typical ≥1.60%	Strength and Toughness
Phosphorous (P)	≤0.035%	≤0.035%	≤0.035%	Controlled Residual
Sulphur (S)	≤0.035%	≤0.035%	≤0.035%	Controlled Residual
Nitrogen (N)	Controlled	Controlled	Controlled	Grain Structure
Copper (Cu)	Controlled	Controlled	Controlled	Atmospheric Corrosion Performance

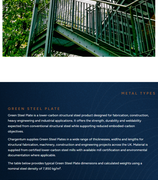
Values are indicative only. Actual chemical composition varies according to the grade, product thickness, manufacturing standard and mill certification.

MECHANICAL PROPERTIES OF GREEN STEEL

Property	S235	S275	S355	Notes
Minimum Yield Strength	235 MPa	275 MPa	355 MPa	Depends on thickness and applicable standard
Tensile Strength	360–510 MPa	410–560 MPa	470–630 MPa	Typical structural grade range
Elongation	Approx. 20–26%	Approx. 19–23%	Approx. 18–22%	Depends on product form and thickness
Density	7,850 kg/m³	7,850 kg/m³	7,850 kg/m³	Typical steel density
Modulus of Elasticity	210,000 MPa	210,000 MPa	210,000 MPa	Typical
Weldability	Excellent	Excellent	Excellent	Subject to grade and welding procedure
Formability	Excellent	Very Good	Very Good	Depends on thickness and processing
Structural Strength	Good	Good	Excellent	Relative structural performance

DELIVERY CONDITIONS

Condition	Description
Mill Finish	Standard as produced steel surface
Hot Rolled	Typical finish for structural plates, sections and bars
Structural Grade	Supplied to the applicable EN material standard
Certified Lower Carbon Material	Supplied from a verified lower carbon steel production route where applicable
Mill Test Certified	Material certification available in accordance with EN 10204 3.1 where specified
Environmental Product Declaration	Available for selected products and mill sources
Recycled Content Information	Available where provided by the manufacturer
Project Specific Certification	Available subject to product and mill documentation
UK Delivery	Available across the UK

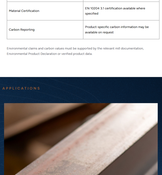


PHYSICAL PROPERTIES

Property	Typical Value	Notes
Density	7,850 kg/m³	Typical carbon and structural steel density
Modulus of Elasticity	210,000 MPa	Typical material stiffness
Thermal Expansion	12 × 10⁻⁶ /°C	Approximate
Thermal Conductivity	45–60 W/mK	Approximate and grade dependent
Electrical Conductivity	Approximately 10% IACS	Typical
Melting Range	Approximately 1,370–1,530°C	Grade dependent
Specific Heat Capacity	Approximately 490 J/kgK	Typical at ambient temperature

GREEN STEEL STANDARDS & SPECIFICATIONS

Product	Typical Standard	Typical Grades	Typical Applications
Green Steel Plate	EN 10025-2, EN 10025-3	S235, S275, S355	Structural Fabrication, Plate Work, General Construction
Green Steel Universal Beams	EN 10034 / EN 10025	S275, S355	Building Frames, Floor Systems and Bridges, Structural Supports
Green Steel Universal Columns	EN 10034 / EN 10025	S275, S355	Load-Bearing Columns and Structural Frames
Green Steel Circular Hollow Section	EN 10210 / EN 10219	S235, S275, S355	Columns, Trusses and Structural Frameworks
Green Steel Rectangular Hollow Section	EN 10210 / EN 10219	S235, S275, S355	Frames, Supports and Fabricated Structures
Green Steel Square Hollow Section	EN 10210 / EN 10219	S235, S275, S355	Structural Frames, Posts, Architectural Engineering Fabrication
Green Steel Flat Bar	EN 10034 / EN 10025	S235, S275, S355	Brackets, Supports and General Fabrication
Green Steel Channel	EN 10279 / EN 10025	S235, S275, S355	Frames, Platforms and Structural Support
Green Steel Square Bar	EN 10060 / EN 10025	S235, S275, S355	Engineering Components and Structural Fabrication



ENVIRONMENTAL AND SUSTAINABILITY INFORMATION

Green Steel is defined by its lower carbon production route and verified environmental performance, rather than by a separate universal steel grade. Environmental performance may vary between steel mills, production methods, energy sources and individual products.

Environmental Factor	Typical Information
Production Route	May include electric arc furnace production, recycled steel input or other lower emission processes
Recycled Content	Varies by mill, production route and product
Carbon Footprint	Product-specific and dependent on verified manufacturing data
Environmental Product Declaration	Available for selected products and certified mill sources
Renewable Electricity	May be used within the manufacturing process depending on the producer
Responsible Sourcing	Documentation may be available from the supplying mill
Material Certification	EN 10204 3.1 certification available where specified
Carbon Reporting	Product-specific carbon information may be available on request

Environmental claims and carbon values must be supported by the relevant mill documentation, Environmental Product Declaration or certified product data.

MATERIAL TYPES & APPLICATIONS

GREEN STEEL PLATE

Green Steel Plate is a lower carbon structural steel product designed for fabrication, construction, heavy engineering and industrial applications. It offers the strength, durability and weldability expected from conventional structural steel while supporting sustainability production routes.

Chargentum supplies Green Steel Plates in a wide range of thicknesses, widths and lengths for structural fabrication, machinery, construction and engineering projects across the UK. Plate stock is supplied from certified lower carbon steel mills with available mill certification and environmental documentation where applicable.

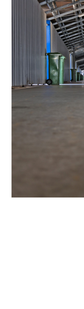
The table below provides typical Green Steel Plate dimensions and calculated weights using a nominal steel density of 7,850 kg/m³.

Thickness (mm)	Width (mm)	Length (mm)	Weight (kg/sheet)	Typical Grade	Typical Applications
2	1000	2000	31.40	S235/S275	Light Fabrication
3	1000	2000	47.10	S235/S275	Brackets and Panels
4	1000	2000	62.80	S275	Structural Fabrication
5	1000	3000	78.50	S275	Plate Components
6	1000	3000	94.20	S275	Structural Plate
8	1000	3000	125.60	S275/S355	Heavy Fabrication
10	1000	3000	157.00	S355	Structural Components
12	1000	3000	188.40	S355	Industrial Fabrication
15	1000	3000	235.50	S355	Heavy Fabrication
20	1000	3000	314.00	S355	Structural Steel
25	1000	3000	392.5	S355	Heavy Fabrication
30	1000	3000	1,004.75	S355	Industrial Structures
40	2000	6000	3,768.00	S355	Heavy Engineering
50	2000	6000	4,710.00	S355	Large Structural Components

BUY GREEN STEEL PLATE

GREEN STEEL UNIVERSAL BEAMS

Green Steel Universal Beams, commonly known as **UB sections or I beams**, are lower carbon structural steel sections designed to provide high load-bearing capacity and efficient structural support. Their wide flanges and strong web profile provide excellent resistance to bending, making them suitable for long spans, floor systems, building frames and heavy structural applications.



GREEN STEEL UNIVERSAL COLUMNS

Green Steel Universal Columns are structural steel sections manufactured using lower carbon steel billets and are ideal for use in building and infrastructure projects where lower embodied carbon is required to provide high performance, ductility and excellent corrosion resistance. Universal Columns are widely used as vertical support members in commercial buildings, industrial structures, warehouses, bridges and other civil engineering and infrastructure projects.

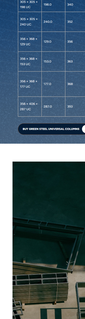
The wide flange profile provides a high resistance to axial compression and buckling, making Green Steel Universal Columns suitable for carrying substantial vertical loads. The material's high strength-to-weight ratio and structural performance allow engineers and fabricators to design efficient, lightweight structural frames that meet demanding load and safety requirements.

Chargeburn supplies Green Steel Universal Columns in a comprehensive range of standard UC section sizes and weights. Materials are sourced from certified lower carbon steel mills with verified Environmental Product Declarations (EPDs) and reduced CO_2 manufacturing processes where available. Green Steel Universal Columns are suitable for structural fabrication, welding, bolting and ground infrastructure applications, with UK delivery available.

GREEN STEEL UNIVERSAL COLUMN STOCK SIZES & WEIGHT CHART

Universal Column Sizes	Weight (kg/m)	Typical Length (mm)	Typical Grade	Typical Applications
152 × 152 × 23 UC	23.0	12.2	12.2	S355	Light structural columns
152 × 152 × 30 UC	30.0	11.8	11.8	S355	Building support columns
152 × 152 × 37 UC	37.0	11.5	11.5	S355	Commercial structures
152 × 152 × 44 UC	44.0	11.5	11.5	S355	Load bearing frames
152 × 152 × 51 UC	51.0	11.5	11.5	S355	Industrial support members
152 × 152 × 60 UC	60.0	11.5	11.5	S355	Heavy structural support members
203 × 203 × 46 UC	46.0	20.2	20.2	S355	Multi-storey buildings
203 × 203 × 52 UC	52.0	20.2	20.2	S355	Commercial columns
203 × 203 × 60 UC	60.0	20.2	20.2	S355	Industrial frameworks
203 × 203 × 71 UC	71.0	20.2	20.2	S355	Industrial buildings
203 × 203 × 86 UC	86.0	20.2	20.2	S355	Heavy duty columns
254 × 254 × 107 UC	107.0	20.5	20.5	S355	High load structures
254 × 254 × 132 UC	132.0	20.5	20.5	S355	Commercial development
254 × 254 × 167 UC	167.0	20.5	20.5	S355	Heavy building columns
254 × 254 × 73 UC	73.0	20.5	20.5	S355	Industrial frameworks
254 × 254 × 89 UC	89.0	20.5	20.5	S355	High load support systems
254 × 254 × 107 UC	107.0	20.5	20.5	S355	Heavy engineering applications
305 × 305 × 97 UC	97.0	30.5	30.5	S355	Multi-storey structures
305 × 305 × 118 UC	118.0	30.5	30.5	S355	Commercial support frame
305 × 305 × 137 UC	137.0	30.5	30.5	S355	Industrial buildings
305 × 305 × 158 UC	158.0	30.5	30.5	S355	Heavy structural columns
305 × 305 × 198 UC	198.0	30.5	30.5	S355	High load support systems
305 × 305 × 240 UC	240.0	30.5	30.5	S355	Major infrastructure projects
356 × 368 × 129 UC	129.0	35.6	35.6	S355	Large commercial structures
356 × 368 × 152 UC	152.0	35.6	35.6	S355	Heavy industrial columns
356 × 368 × 177 UC	177.0	35.6	35.6	S355	High-capacity support systems
356 × 406 × 287 UC	287.0	35.6	35.6	S355	Major infrastructure projects

BUY GREEN STEEL UNIVERSAL COLUMNS



GREEN STEEL UNIVERSAL BEAMS

Green Steel Universal Beams are structural steel sections manufactured using lower carbon steel billets and are ideal for use in building and infrastructure projects where lower embodied carbon is required to provide high performance, ductility and excellent corrosion resistance. Universal Beams are widely used as vertical support members in commercial buildings, industrial structures, warehouses, bridges and other civil engineering and infrastructure projects.

The wide flange profile provides a high resistance to axial compression and bending, making Green Steel Universal Beams suitable for carrying substantial vertical loads. The material's high strength-to-weight ratio and structural performance allow engineers and fabricators to design efficient, lightweight structural frames that meet demanding load and safety requirements.

Chargeburn supplies Green Steel Universal Beams in a comprehensive range of standard UB section sizes and weights. Materials are sourced from certified lower carbon steel mills with verified Environmental Product Declarations (EPDs) and reduced CO_2 manufacturing processes where available. Green Steel Universal Beams are suitable for structural fabrication, welding, bolting and ground infrastructure applications, with UK delivery available.

GREEN STEEL UNIVERSAL BEAM STOCK SIZES & WEIGHT CHART

Universal Beam Sizes	Weight (kg/m)	Typical Length (mm)	Typical Grade	Typical Applications
127 × 76 × 13 UB	13.0	8000–12000	S275/S355	Light structural frames
152 × 89 × 16 UB	16.0	8000–12000	S275/S355	Small building supports
178 × 102 × 19 UB	19.0	8000–12000	S275/S355	Floor beams
203 × 133 × 25 UB	25.0	8000–12000	S275/S355	Structural framing
203 × 133 × 30 UB	30.0	8000–12000	S275/S355	Building structures
254 × 102 × 22 UB	22.0	8000–12000	S275/S355	Light industrial frames
254 × 146 × 31 UB	31.0	8000–12000	S275/S355	Floor and roof beams
305 × 102 × 25 UB	25.0	8000–12000	S275/S355	Structural supports
305 × 127 × 37 UB	37.0	8000–12000	S275/S355	Commercial buildings
305 × 165 × 40 UB	40.0	8000–12000	S275/S355	Heavy Floor Systems
356 × 127 × 33 UB	33.0	8000–12000	S275/S355	Building Frames
356 × 171 × 45 UB	45.0	8000–12000	S275/S355	Industrial Structures
406 × 140 × 39 UB	39.0	8000–12000	S275/S355	Large Structural Frames
406 × 178 × 54 UB	54.0	8000–12000	S275/S355	Heavy Building Structures
457 × 152 × 52 UB	52.0	8000–12000	S275/S355	Industrial Buildings
457 × 191 × 67 UB	67.0	8000–12000	S275/S355	Heavy Structural Supports
533 × 210 × 82 UB	82.0	8000–12000	S355	Large Commercial Structures
610 × 229 × 101 UB	101.0	8000–12000	S355	Heavy Industrial Buildings
686 × 254 × 125 UB	125.0	8000–12000	S355	Long Span Structures
762 × 267 × 147 UB	147.0	8000–12000	S355	Major Structural Projects
838 × 292 × 176 UB	176.0	8000–12000	S355	Heavy Infrastructure Structures
914 × 305 × 201 UB	201.0	8000–12000	S355	Large Load-Bearing Frames

BUY GREEN STEEL UNIVERSAL BEAMS

GREEN STEEL CIRCULAR HOLLOW SECTION (CHS)

Green Steel Circular Hollow Sections (CHS) are manufactured using lower carbon steel billets and are ideal for use in building and infrastructure projects where lower embodied carbon is required. This circular profile provides excellent strength in multiple directions, making them suitable for applications involving compression, bending, torsion and structural loading.

Green Steel CHS is widely used in commercial buildings, industrial structures, architectural frameworks, bridges, handrails, barriers, stairwells, frames, agricultural buildings and general engineering projects. The smooth, uniform circular profile provides an attractive appearance while offering efficient structural performance and good resistance to wind loading.

Chargeburn supplies Green Steel Circular Hollow Sections in a comprehensive range of outside diameters and wall thicknesses. Materials are sourced from certified lower carbon steel mills with verified Environmental Product Declarations (EPDs) and reduced CO_2 manufacturing processes where available. Green Steel CHS is suitable for welding, fabrication and structural engineering applications, with UK delivery available.

GREEN STEEL CIRCULAR HOLLOW SECTION STOCK SIZES & WEIGHT CHART

Outside Diameter (mm)	Wall Thickness (mm)	Weight (kg/m)	Typical Grade	Typical Applications
21.3	2.0	0.95	S355	Light handrails and fabricated frames
21.3	2.5	1.16	S355	Small structural components
26.9	2.0	1.25	S355	Light fabricated structures
26.9	2.5	1.51	S355	Handrails and support frames
33.7	2.0	1.57	S355	General fabrication
33.7	2.5	1.89	S355	Railings and light supports
42.4	2.5	2.42	S355	Architectural frameworks
42.4	3.2	3.04	S355	Structural supports
48.3	2.5	2.79	S355	General steel fabrication
48.3	3.2	3.53	S355	Structural frames
60.3	3.2	4.49	S355	Columns and support members
60.3	4.0	5.58	S355	Industrial structures
76.1	3.2	5.72	S355	Structural frameworks
76.1	4.0	7.07	S355	Load bearing supports
88.9	3.2	6.73	S355	Building columns
88.9	5.0	10.25	S355	Heavy structural applications
101.6	4.0	9.46	S355	Commercial structures
101.6	5.0	11.69	S355	Industrial support systems
114.3	4.0	10.75	S355	Structural columns
114.3	5.0	13.26	S355	Heavy fabrication
139.7	5.0	16.34	S355	Commercial building frames
139.7	6.3	20.38	S355	Heavy duty structural supports
168.3	5.0	20.03	S355	Large structural columns
168.3	6.3	24.98	S355	Industrial frameworks
193.7	6.3	29.88	S355	Heavy engineering applications
219.1	6.3	33.84	S355	Major structural supports
219.1	8.0	41.61	S355	High load applications
244.5	8.0	46.47	S355	Large commercial structures
273.0	8.0	51.98	S355	Heavy industrial projects
323.9	8.0	62.02	S355	Major infrastructure applications
355.6	10.0	84.98	S355	Large structural columns
406.4	12.5	127.06	S355	Heavy duty engineering projects

BUY GREEN STEEL CIRCULAR HOLLOW SECTION

GREEN STEEL RECTANGULAR HOLLOW SECTION (RHS)

Green Steel Rectangular Hollow Sections (RHS) are ample structural steel sections manufactured using lower carbon steel billets and are ideal for use in building and infrastructure projects where lower embodied carbon is required. This rectangular profile provides excellent strength and load bearing performance, making them suitable for structural applications involving bending, compression and general fabrication.

Green Steel RHS is widely used in commercial buildings, industrial structures, warehouses, modular construction, transport equipment, agricultural buildings, machinery frames, platforms, barriers and general engineering projects. The smooth, uniform rectangular profile provides convenient surfaces for welding, bolting and connecting to other structural components, while the enclosed hollow profile offers an efficient strength-to-weight ratio.

Chargeburn supplies Green Steel Rectangular Hollow Sections in a comprehensive range of section sizes and wall thicknesses. Materials are sourced from certified lower carbon steel mills with verified Environmental Product Declarations (EPDs) and reduced CO_2 manufacturing processes where available. Green Steel RHS is suitable for welding, fabrication and structural engineering applications, with UK delivery available.

GREEN STEEL RECTANGULAR HOLLOW SECTION STOCK SIZES & WEIGHT CHART

Hollow Size (mm)	Wall Thickness (mm)	Weight (kg/m)	Typical Grade	Typical Applications
40 × 20	2.0	1.75	S355	Light frames and fabricated components
50 × 25	2.0	2.27	S355	Light structural supports
50 × 30	2.5	2.95	S355	General fabrication
60 × 30	2.5	3.34	S355	Equipment frames
60 × 40	3.0	4.28	S355	Structural supports
80 × 40	3.0	5.32	S355	Building frameworks
80 × 60	4.0	7.99	S355	Industrial structures
100 × 50	3.0	6.38	S355	General structural fabrication
100 × 60	3.0	7.16	S355	Heavy-duty load-bearing frames
100 × 80	4.0	10.65	S355	Heavy support systems
120 × 80	4.0	12.03	S355	Commercial structures
120 × 60	4.0	11.41	S355	Industrial fabrication
120 × 80	5.0	14.92	S355	Structural frameworks
150 × 50	4.0	11.79	S355	Fabricated handrail and barrier systems
150 × 75	5.0	16.98	S355	Industrial frames
150 × 100	5.0	18.84	S355	Building support systems
160 × 80	5.0	18.08	S355	Structural columns
160 × 120	5.0	21.93	S355	Heavy-duty frameworks
200 × 100	5.0	23.77	S355	Commercial building structures
200 × 120	6.3	29.41	S355	High-load support frames
200 × 150	6.3	32.28	S355	Industrial structures
200 × 160	6.3	33.67	S355	Welded fabrication
250 × 100	6.3	33.67	S355	Large structural frames
250 × 150	6.3	38.41	S355	Industrial support systems
250 × 150	8.0	48.08	S355	Heavy-duty structures
300 × 100	6.3	38.41	S355	Major structural frameworks
300 × 150	8.0	53.68	S355	Large engineering applications
300 × 200	8.0	59.29	S355	Large commercial structures
350 × 150	8.0	58.38	S355	Heavy industrial projects
400 × 200	10.0	90.46	S355	Very load-bearing structures

BUY GREEN STEEL RECTANGULAR HOLLOW SECTION

GREEN STEEL SQUARE HOLLOW SECTION (SHS)

Green Steel Square Hollow Sections (SHS) are manufactured using lower carbon steel production methods to provide a sustainable alternative to conventional structural hollow sections. With equal dimensions on all four sides, SHS offers consistent strength, excellent stability and efficient load distribution for a wide range of structural and fabrication applications.

Produced from certified lower carbon steel mills with verified Environmental Product Declarations (EPDs), Green Steel Square Hollow Sections help reduce embodied carbon while maintaining the mechanical properties required for demanding structural and engineered construction projects.

Green Steel SHS is available in various sizes and wall thicknesses to meet the requirements of structural frameworks, architectural structures, industrial fabrications and sustainable building projects.

GREEN STEEL SQUARE HOLLOW SECTION STOCK SIZES & WEIGHT CHART

Size (mm)	Thickness (mm)	Weight (kg/m)	Typical Grade	Typical Applications
20 × 20	2	1.13	S235 / S355 Green Steel	Light fabrications, frames and supports
25 × 25	2	1.41	S235 / S355 Green Steel	Small structures, brackets and fabrication
30 × 30	2	1.73	S235 / S355 Green Steel	General engineering and framework
40 × 40	2	2.28	S235 / S355 Green Steel	Fabrication, supports and frames
40 × 40	3	3.40	S235 / S355 Green Steel	Structural frames and heavier fabrication
50 × 50	2	2.98	S235 / S355 Green Steel	Light structural applications
50 × 50	3	4.51	S235 / S355 Green Steel	Engineering structures and frameworks

50 x 50	5	7.43	S235 / S355 Green Steel	Industrial structures and supports
50 x 50	5	8.60	S235 / S355 Green Steel	Heavy fabrication applications
60 x 60	3	5.18	S235 / S355 Green Steel	Structural frames and assemblies
60 x 60	4	6.91	S235 / S355 Green Steel	Building fabrication and fabrication
70 x 70	4	8.16	S235 / S355 Green Steel	Industrial structures and supports
80 x 80	3	7.31	S235 / S355 Green Steel	General structural applications
80 x 80	5	11.02	S235 / S355 Green Steel	Heavy duty structural applications
90 x 90	5	13.08	S235 / S355 Green Steel	Frameworks and fabricated structures
100 x 100	4	12.20	S235 / S355 Green Steel	Structural supports and frames
100 x 100	6	17.80	S235 / S355 Green Steel	Columns, frames and structural support
120 x 120	5	18.00	S235 / S355 Green Steel	Heavy structural applications
120 x 120	6	21.42	S235 / S355 Green Steel	Structural supports and infrastructure
140 x 140	6	25.10	S235 / S355 Green Steel	Large structural frameworks
150 x 150	6	27.20	S235 / S355 Green Steel	Industrial structural applications
150 x 150	8	34.80	S235 / S355 Green Steel	Heavy structural frameworks
160 x 160	8	37.30	S235 / S355 Green Steel	Infrastructure and heavy engineering
180 x 180	8	42.20	S235 / S355 Green Steel	Large scale structural applications
200 x 200	8	47.10	S235 / S355 Green Steel	Heavy duty construction projects
200 x 200	10	58.30	S235 / S355 Green Steel	High load structural applications
250 x 250	10	75.90	S235 / S355 Green Steel	Major structural frameworks
300 x 300	10	88.30	S235 / S355 Green Steel	Heavy industrial and infrastructure projects

BUY GREEN STEEL SQUARE HOLLOW SECTIONS

GREEN STEEL FLAT BAR

Green Steel flat bars are manufactured from low carbon steel production processes to provide a sustainable alternative for general fabrication, structural and engineering applications. Combining excellent strength, ductility and weldability, Green Steel flat bars are suitable for a wide range of industrial, construction and infrastructure applications where reliable performance is required.

Produced from certified low carbon steel rolls with verified Environmental Product Declaration (EPD), Green Steel flat bars support sustainability in production and fabrication by maintaining the mechanical properties required for fabrication, machining and structural applications.

Available in a wide range of width and thicknesses, Green Steel flat bars are suitable for manufacturing, construction, architectural elsewhere and industrial fabrication projects.

GREEN STEEL FLAT BAR STOCK SIZES & WEIGHT CHART

Width (mm)	Thickness (mm)	Weight (kg/m)	Typical Grade	Typical Applications
20	3	0.47	S235 / S355 Green Steel	Light fabrication and brackets
20	4	0.79	S235 / S355 Green Steel	General engineering applications
25	3	0.59	S235 / S355 Green Steel	Small frames and supports
25	5	0.98	S235 / S355 Green Steel	Fabrication and reinforcement
30	5	1.18	S235 / S355 Green Steel	General structural work
30	6	1.41	S235 / S355 Green Steel	Engineering components
40	5	1.57	S235 / S355 Green Steel	Galvanised structures
40	8	2.51	S235 / S355 Green Steel	Heavier duty fabrication
50	5	1.96	S235 / S355 Green Steel	Industrial structural support
50	10	3.93	S235 / S355 Green Steel	Heavy fabrication applications
60	6	2.83	S235 / S355 Green Steel	Frames and industrial applications
60	10	4.71	S235 / S355 Green Steel	Structural reinforcement
75	5	3.53	S235 / S355 Green Steel	Construction and fabrication
75	10	5.89	S235 / S355 Green Steel	Heavy structural applications
80	8	5.03	S235 / S355 Green Steel	Industrial fabrication
100	8	6.28	S235 / S355 Green Steel	Structural frameworks
100	10	7.85	S235 / S355 Green Steel	Heavy engineering projects
100	12	9.42	S235 / S355 Green Steel	High strength fabrication
100	15	9.42	S235 / S355 Green Steel	Structural supports
150	12	11.78	S235 / S355 Green Steel	Heavy fabrication and construction
150	15	17.66	S235 / S355 Green Steel	Industrial structures
200	15	15.70	S235 / S355 Green Steel	Large structural applications
200	20	21.83	S235 / S355 Green Steel	Heavy duty infrastructure projects

BUY GREEN STEEL FLAT BAR

GREEN STEEL CHANNEL

Green Steel Channels are manufactured using low carbon steel production methods to provide a sustainable alternative for structural and fabrication applications. Combining strength and stability with a U-shaped profile, Green Steel Channels offer excellent load bearing capability, structural versatility while supporting reduced carbon emission targets.

Produced from certified low carbon steel rolls with verified Environmental Product Declaration (EPD), Green Steel Channels deliver reliable structural performance while helping customers achieve sustainable construction and EGI objectives.

Available in a range of sizes and thicknesses, Green Steel Channels are widely used in structural frameworks, machinery supports, building components and general fabrication projects.

GREEN STEEL CHANNEL STOCK SIZES & WEIGHT CHART

Size (mm)	Thickness (mm)	Weight (kg/m)	Typical Grade	Typical Applications
30 x 15	3	1.02	S235 / S355 Green Steel	Light fabrication and supports
40 x 20	3	1.81	S235 / S355 Green Steel	General engineering applications
50 x 25	3	2.27	S235 / S355 Green Steel	Frames and structural supports
50 x 25	5	3.35	S235 / S355 Green Steel	Heavy fabrication work
65 x 32	4	3.68	S235 / S355 Green Steel	Construction and frameworks
75 x 40	5	5.15	S235 / S355 Green Steel	Structural fabrication
80 x 40	5	5.41	S235 / S355 Green Steel	Industrial structures
100 x 50	5	6.70	S235 / S355 Green Steel	Building frames and supports
100 x 50	6	7.70	S235 / S355 Green Steel	General structural applications
120 x 55	7	10.40	S235 / S355 Green Steel	Heavy engineering structures
125 x 65	6	9.03	S235 / S355 Green Steel	Fabricated assemblies
140 x 60	7	12.30	S235 / S355 Green Steel	Industrial fabrication
150 x 75	5	10.00	S235 / S355 Green Steel	Structural supports
160 x 65	7.5	14.20	S235 / S355 Green Steel	Heavy structural applications
180 x 70	7	14.70	S235 / S355 Green Steel	Infrastructure projects
200 x 75	8	17.90	S235 / S355 Green Steel	Heavy duty structures
200 x 80	9	20.00	S235 / S355 Green Steel	Industrial construction
250 x 90	10	27.70	S235 / S355 Green Steel	Large structural frameworks
300 x 100	10	33.00	S235 / S355 Green Steel	Major engineering and infrastructure

BUY GREEN STEEL CHANNEL

GREEN STEEL SQUARE BAR

Green Steel Square Bars are manufactured using low carbon steel production methods to provide a sustainable solution for engineering, fabrication and structural applications. With equal dimensions on all four sides, Square Bars offer consistent strength and reliable performance in fabrication characteristics.

Produced from certified low carbon steel rolls with verified Environmental Product Declaration (EPD), Green Steel Square Bars help reduce embedded carbon while maintaining the mechanical performance required for machining, welding, cutting and general fabrication.

Available in a wide range of sizes, Green Steel Square Bars are commonly used in construction, engineering components, machinery parts, supports and general metal fabrication projects.

GREEN STEEL SQUARE BAR STOCK SIZES & WEIGHT CHART

Size (mm)	Weight (kg/m)	Typical Grade	Typical Applications
8 x 8	0.28	S235 / S355 Green Steel	Small fabrication and brackets
8 x 8	0.50	S235 / S355 Green Steel	Engineering parts and supports
10 x 10	0.79	S235 / S355 Green Steel	General fabrication
12 x 12	1.13	S235 / S355 Green Steel	Brackets, frames and supports
13 x 13	1.27	S235 / S355 Green Steel	Light engineering applications
20 x 20	3.14	S235 / S355 Green Steel	Fabrication and structural components
25 x 25	4.91	S235 / S355 Green Steel	General engineering applications
30 x 30	7.07	S235 / S355 Green Steel	Machine parts and supports
35 x 35	9.62	S235 / S355 Green Steel	Fabrication projects
40 x 40	12.56	S235 / S355 Green Steel	Structural frames and supports
45 x 45	15.90	S235 / S355 Green Steel	Industrial fabrication
50 x 50	19.63	S235 / S355 Green Steel	Heavy fabrication applications
60 x 60	28.26	S235 / S355 Green Steel	Engineering structures
70 x 70	38.48	S235 / S355 Green Steel	Industrial frameworks
75 x 75	44.18	S235 / S355 Green Steel	Industrial applications
80 x 80	50.24	S235 / S355 Green Steel	Heavy duty fabrication
90 x 90	63.59	S235 / S355 Green Steel	Structural and engineering projects
100 x 100	78.50	S235 / S355 Green Steel	Machine bases and supports
110 x 110	94.99	S235 / S355 Green Steel	Heavy engineering applications
120 x 120	113.04	S235 / S355 Green Steel	Structural frameworks
150 x 150	176.63	S235 / S355 Green Steel	Industrial structures
200 x 200	314.00	S235 / S355 Green Steel	Heavy structural applications
			Large fabrication projects
			Heavy duty engineering and infrastructure applications

BUY GREEN STEEL SQUARE BAR

Typical dimensions and weights are provided as a general engineering guide. Actual section properties, grade, availability and environmental documentation may vary by fabrication and application material requirements.

Weights shown for nominal values in kg per metre. Section dimensions may vary slightly depending on the applicable material, manufacturer and production route. Green Steel availability, grade, carbon calculation data and EPD documentation are subject to roll supply and project requirements.

Chargentum supplies Green Steel manufactured from certified low carbon steel rolls with verified Environmental Product Declaration (EPD) and reduced CO2 manufacturing processes. Available in multiple widths, thicknesses and structural grades for sustainable construction, fabrication and engineering applications.

DOWNLOAD GREEN STEEL DATASHEET

Download the complete datasheet for green steel including:

- Chemical and mechanical properties
- Factory conditions, tolerances, and finishes
- Full dimension, weight, and grade tables for plates, beams, columns, hollow sections, flat bars, channels, square bars and round bars

EXPLORE MORE ABOUT CHARGENTUM'S STRUCTURAL STEEL, ENGINEERING STEEL, ALLOY STEEL, PERFORATED SHEETS, SEAMLESS TUBES, TOOL STEEL, STAINLESS STEEL, BRASS, COPPER, ALUMINIUM, GREEN STEEL AND METAL GRADES & SPECIFICATIONS!

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