



## Alloy Guide: Aluminium

The South Easts Premier Stainless Steel,  
Aluminium and Brass Stockholder and Processor





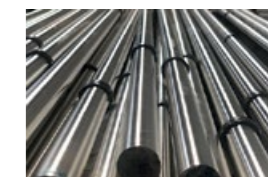
One of the largest  
stockholders  
of stainless  
steel, brass and  
aluminium in the  
South East of  
England.



## Contents

---

- 7 Welcome to Orion Alloys
- 9 About the Company
- 11 Guide to Aluminium Grades
- 13 Aluminium Channels
- 17 Aluminium Unequal Angles
- 21 Aluminium Equal Angles
- 25 Aluminium Round Bar
- 27 Aluminium Tee Sections & Square Bars
- 29 Aluminium Round Tubes
- 33 Aluminium Flat Bar
- 37 Aluminium Square Tubes
- 39 Aluminium Rectangular Tubes
- 41 Aluminium Sheet, White Painted Sheet & Five Bar Treadplate





## Welcome to Orion Alloys Ltd

---

Orion Alloys is the South East's premier stainless steel, brass and aluminium stockist. We are a family-owned business based in Harlow, Essex, with over 100 years of experience between us. Our company has grown to become one of the largest stockholders of stainless steel, aluminium and brass in the South East of England.

Our company was founded in 1991 by John Halford who has over 50 years of experience in the industry. Since then, we have been committed to providing a friendly and reliable service to our customers. We have invested heavily in recent years in two fully automated sheet polishing lines, plate and bar section polishing equipment, and cutting machinery for bar, hollow section, and sheet. We have also increased our warehouse capacity to over 70,000 square feet to be able to keep sufficient stock and buy and sell competitively. This has enabled us to increase our range of products significantly.

We operate our own fleet of modern trucks delivering to the South East of England.

### ISO 9001 Certified

---

Our ISO 9001 certification from NQA demonstrates our commitment to the highest industry standards. This internationally recognised standard ensures streamlined processes, rigorous quality control, and continuous improvement. At Orion Alloys, ISO 9001 means efficient operations, scheduled deliveries, and a customer-focused approach. Clients benefit from our dedication to excellence, providing assurance that they are partnering with a reliable supplier.





## About the Company

At Orion Alloys Ltd, we take pride in being the sole stockist in the South East of England equipped with two fully automated sheet polishing production lines. Our commitment to cutting-edge technology allows us to satin polish stainless steel, brass, and aluminium sheets up to 6mm in thickness, with a maximum width of 1500mm. What sets us apart is our extensive stock of polished sheets, readily available for immediate despatch, and bespoke or special orders processed and turned around within 1-2 days.

In-house, we possess the capability to bespoke satin polish stainless steel, brass, and aluminium lengths, as well as hollow sections. Offering a range of different grained finishes tailored to meet our customers' specific requirements, we take pride in providing the fastest lead times compared to other stockists in the South East of England.

With our fast cutting service for lengths and hollow sections, along with our in-house guillotine capable of shearing sheet up to 1500mm wide, we ensure that your requirements are met promptly and efficiently.

## A Comprehensive Inventory

Our Essex-based facility houses a comprehensive inventory, including a full range of mirror-polished sheets up to 1500mm wide and 3mm thick. Additionally, we keep circle-polished sheets ex-stock, providing our customers with a diverse selection to meet various project specifications.

## Convenient Logistics

At Orion Alloys Ltd, we understand the importance of convenience. All our stock is readily available in Essex, welcoming same-day collections for our clients. For those who prefer scheduled deliveries, our next-day timed delivery service ensures that your materials arrive precisely when you need them.





## Guide to Grades

Euro Standard	Old British Standard		Euro Standard	Old British Standard	
6082T6	HE30	<p>Aluminum alloy 6082 is a medium-strength alloy recognised for its exceptional resistance to corrosion. It stands as the highest-strength member within the 6000 series alloys. Alloy 6082 is primarily acknowledged as a structural alloy, and when in plate form, it is the most commonly used alloy for machining purposes. This relatively recent alloy has gained prominence due to its superior strength, often replacing 6061 in various applications. The substantial addition of manganese serves to control the grain structure, resulting in an even stronger alloy.</p> <p>In the T6 and T651 tempers, alloy 6082 displays good machinability, producing tightly coiled swarf when chip breakers are employed.</p>	5251 H22	NS4	<p>Aluminum alloy 5251 is classified as a medium-strength alloy with notable ductility, which makes it highly suitable for various forming processes. Supplied in Plate and Sheet form, alloy 5251 is characterised by its rapid work hardening ability and is easily weldable. Additionally, it exhibits exceptional corrosion resistance, especially in marine settings.</p>
6063T6		<p>Aluminum alloy 6063 is recognised as a medium-strength alloy, often referred to as an architectural alloy. It is typically employed in complex extrusion processes. This alloy boasts a fine surface finish, impressive corrosion resistance, suitability for welding, and is readily adaptable for anodising.</p>	1050 H14	SIC	<p>Aluminium alloy 1050 is widely utilised in general sheet metal applications when a modest level of strength is necessary. It is renowned for its exceptional resistance to corrosion, remarkable ductility, and a finish that reflects light superbly. Applications typically include chemical process plant equipment, food industry containers, pyrotechnic powder, architectural flashings, lamp reflectors and cable sheathing.</p>
			5754 H114		<p>Aluminum alloy 5754 demonstrates outstanding corrosion resistance, particularly in environments exposed to seawater and industrial pollutants. It possesses superior strength when compared to 5251, and this elevated strength level makes 5754 particularly well-suited for flooring applications. It is supplied as plate, sheet and treadplate/patterned sheet</p>



## Aluminium Channels

Finishes Available: Plain / Satin

## Aluminium Channels

Explore the strength and lightweight nature of Aluminium Channels at Orion Alloys Ltd, designed to support a wide range of structural applications. These U-shaped profiles are perfect for frame building, railings, and architectural trim, combining durability with ease of handling.

Their resistance to corrosion and the elements makes them a preferred choice for both indoor and outdoor projects. Available in various sizes, our aluminium channels ensure versatility and reliability for your construction and design needs.

Imperial Size				Weight Kg/M	Metric Size					
A	B	C	D		A	B	C	D		
3/8	X	3/8	X	1/16	0.11	9.52	X	9.52	X	1.6
1/2	X	1/2	X	1/16	0.15	12.7	X	12.7	X	1.6
1/2	X	1/2	X	1/8	0.27	12.7	X	12.7	X	3.2
5/8	X	5/8	X	1/16	0.19	15.9	X	15.9	X	1.6
5/8	X	5/8	X	1/8	0.35	15.9	X	15.9	X	3.2
3/4	X	1/2	X	1/8	0.32	19	X	12.7	X	3.2
3/4	X	3/4	X	1/16	0.23	19	X	19	X	1.6
3/4	X	3/4	X	1/8	0.44	19	X	19	X	3.2
7/8	X	7/8	X	1/8	0.52	22.2	X	22.2	X	3.2
1	X	1/2	X	1/8	0.38	25.4	X	12.7	X	3.2
1	X	3/4	X	1/8	0.49	25.4	X	19	X	3.2
1	X	1	X	1/8	0.60	25.4	X	25.4	X	3.2
1	X	1	X	3/16	0.87	25.4	X	25.4	X	4.76
1	X	1 1/2	X	1/8	0.83	25.4	X	38.1	X	3.2
1	X	2	X	1/8	1.04	25.4	X	50.8	X	3.2
1 1/8	X	3/4	X	1/8	0.52	28.6	X	19	X	3.2
1 1/8	X	1	X	1/8	0.63	28.6	X	25.4	X	3.2
1 1/4	X	1/2	X	1/8	0.44	31.7	X	12.7	X	3.2
1 1/4	X	3/4	X	1/8	0.55	31.7	X	19	X	3.2
1 1/4	X	1	X	1/8	0.69	31.7	X	25.4	X	3.2
1 1/4	X	1 1/4	X	1/8	0.76	31.7	X	31.7	X	3.2
1 1/4	X	1 1/4	X	3/16	1.15	31.7	X	31.7	X	4.76
1 3/8	X	1	X	1/8	0.68	34.9	X	25.4	X	3.2
1 1/2	X	3/4	X	1/8	0.60	38.1	X	19	X	3.2
1 1/2	X	1	X	1/8	0.71	38.1	X	25.4	X	3.2
1 1/2	X	1 1/2	X	1/8	0.93	38.1	X	38.1	X	3.2
1 1/2	X	1 1/2	X	3/16	1.36	38.1	X	38.1	X	4.76
1 3/4	X	1	X	1/8	0.76	44.4	X	25.4	X	3.2
1 7/8	X	1	X	1/8	0.79	47.6	X	25.4	X	3.2
2	X	1	X	1/8	0.82	50.8	X	25.4	X	3.2

\*External Dimensions: A: Base Width. B: Leg Height. C: Base Thickness. D: Leg Thickness

Continued on next page >



## Aluminium Channels

Finishes Available: Plain / Satin

Imperial Size				Weight Kg/M	Metric Size									
A	B	C	D		A	B	C	D						
2	X	1	X	3/16	1.19	50.8	X	25.4	X	4.76				
2	X	1	X	1/4	1.53	50.8	X	25.4	X	6.35				
2	X	1.1/2	X	1/8	0.99	50.8	X	38.1	X	3.2				
2	X	1.1/2	X	1/4	1.97	50.8	X	38.1	X	6.35				
2	X	2	X	1/8	1.26	50.8	X	50.8	X	3.2				
2	X	2	X	3/16	1.84	50.8	X	50.8	X	4.76				
2	X	2	X	1/4	2.41	50.8	X	50.8	X	6.35				
2.1/4	X	1.1/4	X	3/16	1.44	57.1	X	31.7	X	4.76				
2.1/2	X	1	X	1/8	0.93	63.5	X	25.4	X	3.2				
2.1/2	X	1.1/4	X	3/16	1.52	63.5	X	31.7	X	4.76				
3	X	1	X	1/8	1.04	76.2	X	25.4	X	3.2				
3	X	1.1/2	X	1/8	1.31	76.2	X	38.1	X	3.2				
3	X	1.1/2	X	1/4	2.40	76.2	X	38.1	X	6.35				
3	X	1.1/2	X	1/4	X	5/16	2.78	76.2	X	38.1	X	6.35	X	7.95
3	X	2	X	1/8	1.48	76.2	X	50.8	X	3.2				
3	X	2	X	1/4	2.85	76.2	X	50.8	X	6.35				
3	X	3	X	1/4	3.75	76.2	X	76.2	X	6.35				
4	X	2	X	1/8	1.69	101.6	X	50.8	X	3.2				
4	X	2	X	1/4	3.23	101.6	X	50.8	X	6.35				
4	X	2	X	1/4	X	5/16	3.76	101.6	X	50.8	X	6.35	X	7.95
5	X	2	X	1/4	X	5/16	4.16	127	X	50.8	X	6.35	X	7.95
6	X	3	X	1/4	X	3/8	6.43	152.4	X	76.2	X	6.35	X	9.52
6	X	3	X	3/8	X	1/2	8.64	152.4	X	76.2	X	9.52	X	12.7
8	X	3	X	3/8	X	1/2	9.95	203.2	X	76.2	X	9.52	X	12.7

\*External Dimensions: A: Base Width. B: Leg Height. C: Base Thickness. D: Leg Thickness





## Aluminium Unequal Angle

Finishes Available: Plain / Satin

### Aluminium Unequal Angle

Orion Alloys Ltd presents Aluminium Unequal Angles, tailored for projects requiring strength with a lightweight advantage. These L-shaped profiles with unequal sides offer flexibility in design and application, making them suitable for frame construction, supports, and bespoke projects where different dimensions are needed.

Their corrosion-resistant properties and ease of fabrication make them a versatile choice for a wide array of applications, from industrial to architectural.

Imperial Size			Weight Kg/M	Metric Size						
A	B	C		A	B	C				
3/4	X	3/8	X	1/16	0.117	19	X	9.25	X	1.6
3/4	X	1/2	X	1/16	0.13	19	X	12.7	X	1.6
3/4	X	1/2	X	1/8	0.24	19	X	12.7	X	3.2
1	X	1/2	X	1/16	0.16	25.4	X	12.7	X	1.6
1	X	1/2	X	1/8	0.30	25.4	X	12.7	X	3.2
1	X	5/8	X	1/8	0.33	25.4	X	15.9	X	3.2
1	X	3/4	X	1/16	0.19	25.4	X	19	X	1.6
1	X	3/4	X	1/8	0.36	25.4	X	19	X	3.2
1 1/4	X	1/2	X	1/8	0.36	31.7	X	12.7	X	3.2
1 1/4	X	3/4	X	1/8	0.411	31.7	X	19	X	3.2
1 1/4	X	1	X	1/8	0.47	31.7	X	25.4	X	3.2
1 1/2	X	1/2	X	1/16	0.213	38.1	X	12.7	X	1.6
1 1/2	X	1/2	X	1/8	0.411	38.1	X	12.7	X	3.2
1 1/2	X	3/4	X	1/8	0.47	38.1	X	19	X	3.2
1 1/2	X	1	X	1/8	0.52	38.1	X	25.4	X	3.2
1 1/2	X	1	X	3/16	0.76	38	X	25.4	X	4.76
1 3/4	X	3/4	X	1/8	0.52	44.4	X	19	X	3.2
1 3/4	X	1	X	1/8	0.57	44.4	X	25.4	X	3.2
2	X	1/2	X	1/8	0.52	50.8	X	12.7	X	3.2
2	X	3/4	X	1/8	0.58	50.8	X	19	X	3.2
2	X	1	X	1/8	0.63	50.8	X	25.4	X	3.2
2	X	1	X	3/16	0.92	50.8	X	25.4	X	4.76
2	X	1	X	1/4	1.20	50.8	X	25.4	X	6.35
2	X	1 1/4	X	1/4	1.31	50.8	X	31.75	X	6.35
2	X	1 1/2	X	1/8	0.74	50.8	X	38.1	X	3.2
2	X	1 1/2	X	3/16	1.10	50.8	X	38.1	X	4.76
2	X	1 1/2	X	1/4	1.43	50.8	X	38.1	X	6.35
2 1/4	X	1 1/4	X	1/8	0.74	57.1	X	31.7	X	3.2
2 1/2	X	1	X	1/8	0.74	63.5	X	25.4	X	3.2
2 1/2	X	1 1/2	X	1/8	0.85	63.5	X	38.1	X	3.2

\*External Dimensions: A: Base Width. B: Leg Height. C: Base Thickness.

Continued on next page >



## Aluminium Unequal Angle

Finishes Available: Plain / Satin

Imperial Size			Weight Kg/M	Metric Size						
A	B	C		A	B	C				
2 1/2	X	1 1/2	X	3/16	1.28	63.5	X	38.1	X	4.76
2 1/2	X	1 1/2	X	1/4	1.65	63.5	X	38.1	X	6.35
2 1/2	X	2	X	3/16	1.41	63.5	X	50.8	X	4.76
2 1/2	X	2	X	1/4	1.86	63.5	X	50.8	X	6.35
3	X	1	X	1/8	0.86	76.2	X	25.4	X	3.2
3	X	1	X	1/4	1.65	76.2	X	25.4	X	6.35
3	X	1 1/2	X	1/8	0.96	76.2	X	38.1	X	3.2
3	X	1 1/2	X	1/4	1.86	76.2	X	38.1	X	6.35
3	X	2	X	1/8	1.07	76.2	X	50.8	X	3.2
3	X	2	X	3/16	1.58	76.2	X	50.8	X	4.76
3	X	2	X	1/4	2.08	76.2	X	50.8	X	6.35
3	X	2	X	3/8	3.03	76.2	X	50.8	X	9.52
4	X	1	X	1/8	1.07	101.6	X	25.4	X	3.2
4	X	2	X	1/8	1.28	101.6	X	50.8	X	3.2
4	X	2	X	3/16	1.91	101.6	X	50.8	X	4.76
4	X	2	X	1/4	2.63	101.6	X	50.8	X	6.35
4	X	3	X	1/4	3.02	101.6	X	76.2	X	6.35
4	X	3	X	3/8	4.34	101.6	X	76.2	X	9.52
5	X	2	X	1/4	2.95	127	X	50.8	X	6.35
5	X	3	X	1/4	3.39	127	X	76.2	X	6.35
5	X	3	X	3/8	5.02	127	X	76.2	X	9.52
6	X	2	X	1/4	3.39	152.4	X	50.8	X	6.35
6	X	2	X	3/8	5.00	152.4	X	50.8	X	9.52
6	X	3	X	1/4	3.82	152.4	X	76.2	X	6.35
6	X	3	X	3/8	5.74	152.4	X	76.2	X	9.52
					7.86	200	X	100	X	10

\*External Dimensions: A: Base Width. B: Leg Height. C: Base Thickness.



## Aluminium Equal Angle

Finishes Available: Plain / Satin

### Aluminium Equal Angle

Discover the precision and versatility of Aluminium Equal Angles at Orion Alloys Ltd. These symmetrically L-shaped profiles offer a balance of strength and lightness, ideal for framing, brackets, and architectural detailing.

With excellent resistance to corrosion and the ability to withstand outdoor environments, our equal angles are suited for a multitude of applications. Their ease of machining and welding further enhances their appeal across various industries.

Imperial Size			Weight Kg/M	Metric Size						
A	B	C		A	B	C				
3/8	X	3/8	X	1/16	0.08	9.5	X	9.5	X	1.6
1/2	X	1/2	X	1/16	0.10	12.7	X	12.7	X	1.6
1/2	X	1/2	X	1/8	0.19	12.7	X	12.7	X	3.2
5/8	X	5/8	X	1/16	0.13	15.9	X	15.9	X	1.6
5/8	X	5/8	X	1/8	0.25	15.9	X	15.9	X	3.2
3/4	X	3/4	X	1/16	0.16	19	X	19	X	1.6
3/4	X	3/4	X	1/8	0.30	19	X	19	X	3.2
7/8	X	7/8	X	1/16	0.19	22.2	X	22.2	X	1.6
7/8	X	7/8	X	1/8	0.36	22.2	X	22.2	X	3.2
1	X	1	X	1/16	0.21	25.4	X	25.4	X	1.6
1	X	1	X	1/8	0.41	25.4	X	25.4	X	3.2
1	X	1	X	3/16	0.60	25.4	X	25.4	X	4.76
1	X	1	X	1/4	0.77	25.4	X	25.4	X	6.35
1 1/8	X	1 1/8	X	1/8	0.47	28.6	X	28.6	X	3.2
1 1/4	X	1 1/4	X	1/16	0.27	31.7	X	31.7	X	1.6
1 1/4	X	1 1/4	X	1/8	0.52	31.7	X	31.7	X	3.2
1 1/4	X	1 1/4	X	3/16	0.76	31.7	X	31.7	X	4.76
1 1/4	X	1 1/4	X	1/4	0.99	31.7	X	31.7	X	6.35
1 1/2	X	1 1/2	X	1/16	0.33	38.1	X	38.1	X	1.6
1 1/2	X	1 1/2	X	1/8	0.63	38.1	X	38.1	X	3.2
1 1/2	X	1 1/2	X	3/16	0.93	38.1	X	38.1	X	4.76
1 1/2	X	1 1/2	X	1/4	1.21	38.1	X	38.1	X	6.35
1 3/4	X	1 3/4	X	1/8	0.74	44.4	X	44.4	X	3.2
1 3/4	X	1 3/4	X	3/16	1.11	44.4	X	44.4	X	4.76
1 3/4	X	1 3/4	X	1/4	1.43	44.4	X	44.4	X	6.35
2	X	2	X	1/16	0.43	50.8	X	50.8	X	1.6
2	X	2	X	1/8	0.85	50.8	X	50.8	X	3.2
2	X	2	X	3/16	1.26	50.8	X	50.8	X	4.76
2	X	2	X	1/4	1.65	50.8	X	50.8	X	6.35
2	X	2	X	3/8	2.38	50.8	X	50.8	X	9.52

Continued on next page >



## Aluminium Equal Angle

Finishes Available: Plain / Satin

Imperial Size			Weight Kg/M	Metric Size						
A	B	C		A	B	C				
2 1/4	X	2 1/4	X	1/4	1.86	57.15	X	57.15	X	6.35
2 1/2	X	2 1/2	X	1/8	1.07	63.5	X	63.5	X	3.2
2 1/2	X	2 1/2	X	3/16	1.59	63.5	X	63.5	X	4.76
2 1/2	X	2 1/2	X	1/4	2.08	63.5	X	63.5	X	6.35
2 1/2	X	2 1/2	X	3/8	3.04	63.5	X	63.5	X	9.52
3	X	3	X	1/8	1.28	76.2	X	76.2	X	3.2
3	X	3	X	3/16	1.95	76.2	X	76.2	X	4.76
3	X	3	X	1/4	2.53	76.2	X	76.2	X	6.35
3	X	3	X	3/8	3.70	76.2	X	76.2	X	9.52
4	X	4	X	1/8	1.73	101.6	X	101.6	X	3.2
4	X	4	X	1/4	3.47	101.6	X	101.6	X	6.35
4	X	4	X	3/8	5.02	101.6	X	101.6	X	9.52
4	X	4	X	1/2	6.60	101.6	X	101.6	X	12.7
6	X	6	X	1/2	10.10	152.4	X	152.4	X	12.7



## Aluminium Round Bar

Finishes Available: Plain / Satin

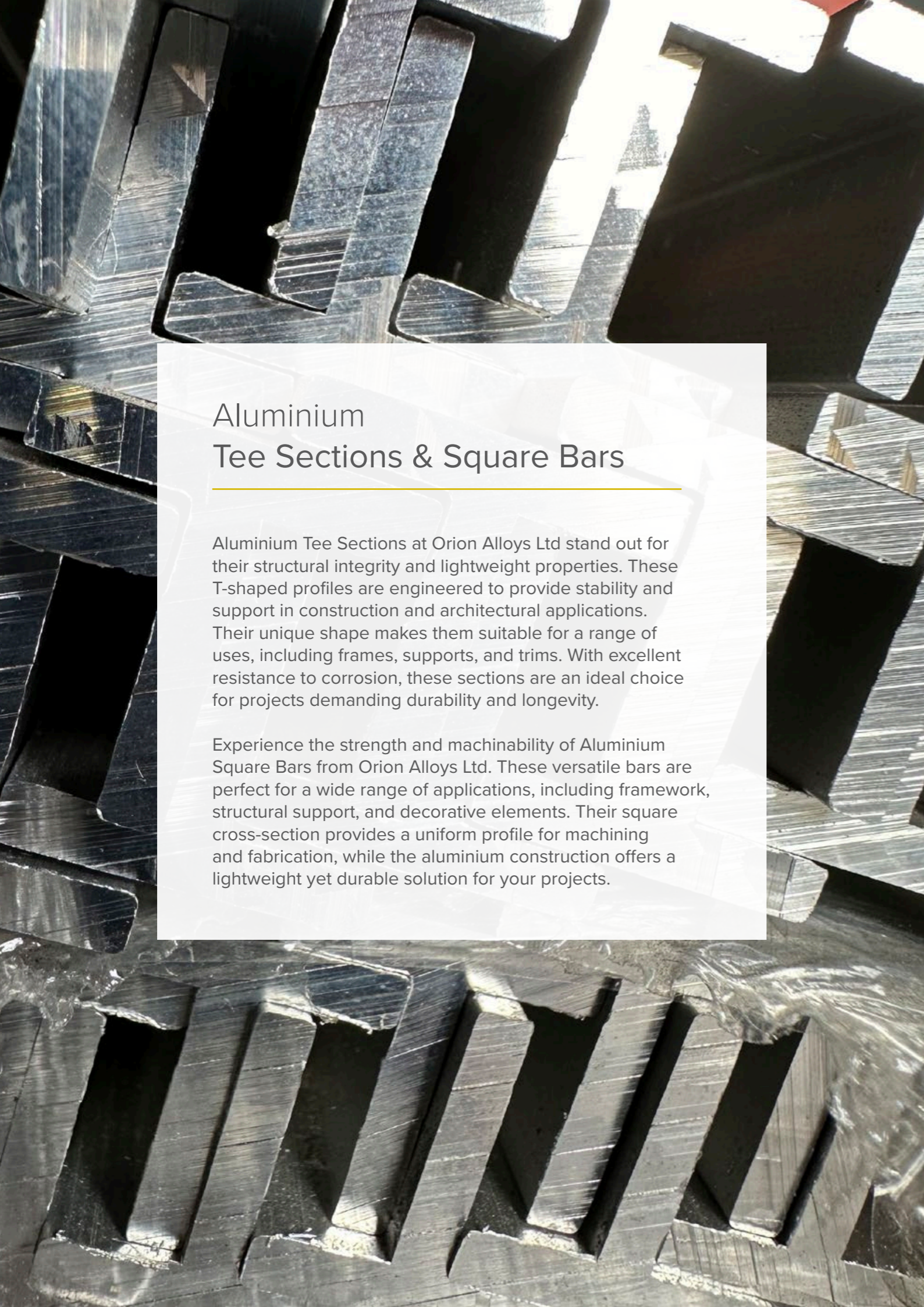
### Aluminium Round Bar

Orion Alloys Aluminium Round Bar is a testament to versatility and performance. This solid, cylindrical bar is a go-to material for manufacturing, engineering, and decorative applications, offering a combination of lightweight strength, machinability, and corrosion resistance.

Ideal for components, shafts, and architectural features, our round bars are available in a range of diameters to suit diverse project requirements.

Diameter Imperial	Weight Kg/M	Diameter Metric
3/16	0.05	4.76
1/4	0.09	6.35
5/16	0.14	7.95
3/8	0.19	9.52
7/16	0.27	11.11
1/2	0.35	12.7
9/16	0.45	14.29
5/8	0.55	15.87
11/16	0.67	17.47
3/4	0.80	19.05
13/16	0.93	20.63
7/8	1.08	22.22
15/16	1.21	23.81
	1.34	25
1	1.41	25.4
11/8	1.79	28.57
	1.9	30
11/4	2.20	31.75
13/8	2.68	34.92
11/2	3.18	38.1
15/8	3.73	41.27
13/4	4.34	44.45
17/8	4.97	47.62
2	5.65	50.8
21/8	6.40	53.97
21/4	7.16	57.15

Diameter Imperial	Weight Kg/M	Diameter Metric
23/8	7.99	60.32
21/2	8.85	63.5
25/8	9.75	66.67
23/4	10.4	69.85
3	12.4	76.2
31/4	14.5	82.5
31/2	16.8	88.9
33/4	19.3	95.25
4	22.0	101.6
41/4	24.8	107.95
41/2	27.8	114.3
43/4	30.9	120.65
5	34.4	127
51/4	37.8	133.4
51/2	41.5	139.7
53/4	45.4	146
6	49.4	152.4
61/2	58	165.1
7	67.3	177.8
71/2	77.2	190.5
8	87.9	203.2
9	111.3	228.6
10	137.4	254
11	166.2	279.4
12	197.9	304.8



## Aluminium Tee Sections & Square Bars

Aluminium Tee Sections at Orion Alloys Ltd stand out for their structural integrity and lightweight properties. These T-shaped profiles are engineered to provide stability and support in construction and architectural applications. Their unique shape makes them suitable for a range of uses, including frames, supports, and trims. With excellent resistance to corrosion, these sections are an ideal choice for projects demanding durability and longevity.

Experience the strength and machinability of Aluminium Square Bars from Orion Alloys Ltd. These versatile bars are perfect for a wide range of applications, including framework, structural support, and decorative elements. Their square cross-section provides a uniform profile for machining and fabrication, while the aluminium construction offers a lightweight yet durable solution for your projects.



## Aluminium Tee Sections

Finishes Available: Plain / Satin

Imperial Size			Weight Kg/M	Metric Size						
A	B	C		A	B	C				
1/2	X	1/2	X	1/16	0.10	12.7	X	12.7	X	1.6
5/8	X	5/8	X	1/8	0.25	15.9	X	15.9	X	3.2
3/4	X	3/4	X	1/16	0.16	19	X	19	X	1.6
3/4	X	3/4	X	1/8	0.30	19	X	19	X	3.2
7/8	X	7/8	X	1/8	0.36	22.2	X	22.2	X	3.2
1	X	1	X	1/16	0.21	25.4	X	25.4	X	1.6
1	X	1	X	1/8	0.41	25.4	X	25.4	X	3.2
1 1/4	X	1 1/4	X	1/8	0.52	31.7	X	31.7	X	3.2
1 1/4	X	1 1/4	X	3/16	0.76	31.7	X	31.7	X	4.76
1 1/2	X	1 1/2	X	1/8	0.63	38.1	X	38.1	X	3.2
1 1/2	X	1 1/2	X	3/16	0.93	38.1	X	38.1	X	4.76
1 1/2	X	1 1/2	X	1/4	1.21	38.1	X	38.1	X	6.35
2	X	1	X	1/8	0.63	50.8	X	25.4	X	3.2
2	X	2	X	1/8	0.85	50.8	X	50.8	X	3.2
2	X	2	X	3/16	1.26	50.8	X	50.8	X	4.76
2	X	2	X	1/4	1.65	50.8	X	50.8	X	6.35
3	X	3	X	1/4	2.57	76.2	X	76.2	X	6.35
4	X	3	X	1/4	3.02	101.6	X	76.2	X	6.35



## Aluminium Square Bars

Finishes Available: Plain / Satin

Imperial Size	Weight Kg/M	Metric Size
1/4	0.11	6.35
5/16	0.171	7.93
3/8	0.25	9.52
1/2	0.44	12.7
5/8	0.69	15.87
3/4	0.99	19.05
7/8	1.34	22.2
1	1.76	25.4
1 1/4	2.74	31.75
1 1/2	3.96	38.1
1 3/4	5.37	44.45
2	7.02	50.8
2 1/4	8.88	57.15
2 1/2	10.98	63.5
3	15.80	76.2
4	28.13	101.6
5	44.5	127



## Aluminium Round Tubes

Finishes Available: Plain / Satin

### Aluminium Round Tubes

Orion Alloys Aluminium Round Tubes offer a blend of strength, flexibility, and corrosion resistance. These cylindrical hollow sections are ideal for structural applications, fluid conveyance, and even decorative purposes.

Lightweight and easy to work with, our round tubes can be used in a variety of settings, from industrial machinery to architectural accents, providing a versatile solution for your tubing needs.

Imperial Size O.D x Wall				Weight Kg/M	Metric Size O.D x Wall		
1/4	X	20	SWG	0.04	6.35	X	0.9
1/4	X	16	SWG	0.06	6.35	X	1.6
5/16	X	20	SWG	0.05	7.95	X	0.9
5/16	X	16	SWG	0.09	7.95	X	1.6
3/8	X	20	SWG	0.07	9.5	X	0.9
3/8	X	18	SWG	0.09	9.5	X	1.2
3/8	X	16	SWG	0.11	9.5	X	1.6
7/16	X	16	SWG	0.131	11.1	X	1.6
1/2	X	20	SWG	0.09	12.7	X	0.9
1/2	X	18	SWG	0.12	12.7	X	1.2
1/2	X	16	SWG	0.15	12.7	X	1.6
1/2	X	14	SWG	0.18	12.7	X	2
1/2	X	10	SWG	0.26	12.7	X	3.2
5/8	X	20	SWG	0.11	15.9	X	0.9
5/8	X	18	SWG	0.15	15.9	X	1.2
5/8	X	16	SWG	0.20	15.9	X	1.6
5/8	X	10	SWG	0.35	15.9	X	3.2
3/4	X	20	SWG	0.14	19	X	0.9
3/4	X	18	SWG	0.18	19	X	1.2
3/4	X	16	SWG	0.24	19	X	1.6
3/4	X	14	SWG	0.29	19	X	2
3/4	X	10	SWG	0.44	19	X	3.2
7/8	X	20	SWG	0.16	22.2	X	0.9
7/8	X	18	SWG	0.22	22.2	X	1.2
7/8	X	16	SWG	0.28	22.2	X	1.6
7/8	X	10	SWG	0.52	22.2	X	3.2
1	X	20	SWG	0.19	25.4	X	0.9
1	X	18	SWG	0.25	25.4	X	1.2
1	X	16	SWG	0.33	25.4	X	1.6
1	X	14	SWG	0.40	25.4	X	2
1	X	12	SWG	0.51	25.4	X	2.6
1	X	10	SWG	0.61	25.4	X	3.2
1	X	3/16		0.84	25.4	X	4.76
1 1/8	X	18	SWG	0.3	28.6	X	1.2
1 1/8	X	16	SWG	0.37	28.6	X	1.6
1 1/8	X	10	SWG	0.7	28.6	X	3.2
				0.47	30	X	2
1 1/4	X	18	SWG	0.32	31.7	X	1.2
1 1/4	X	16	SWG	0.41	31.7	X	1.6
1 1/4	X	12	SWG	0.65	31.7	X	2.6
1 1/4	X	10	SWG	0.79	31.7	X	3.2
1 1/4	X	3/16		1.10	31.7	X	4.76

Continued on next page >



## Aluminium Round Tubes

Finishes Available: Plain / Satin

Imperial Size O.D Wall			Weight Kg/M	Metric Size O.D Wall		
1 1/4	X	1/4	1.37	31.75	X	6.35
1 3/8	X	16 SWG	0.46	34.9	X	1.6
1 3/8	X	10 SWG	0.87	34.9	X	3.2
1 1/2	X	18 SWG	0.38	38.1	X	1.2
1 1/2	X	16 SWG	0.50	38.1	X	1.6
1 1/2	X	14 SWG	0.63	38.1	X	2
1 1/2	X	10 SWG	0.96	38.1	X	3.2
1 1/2	X	1/4	1.71	38.1	X	6.35
1 5/8	X	16 SWG	0.55	41.3	X	1.6
1 5/8	X	10 SWG	1.05	41.3	X	3.2
1 3/4	X	16 SWG	0.59	44.4	X	1.6
1 3/4	X	10 SWG	1.14	44.4	X	3.2
1 7/8	X	10 SWG	1.22	47.62	X	3.2
			1.65	48.4	X	4.5
2	X	18 SWG	0.52	50.8	X	1.2
2	X	16 SWG	0.68	50.8	X	1.6
2	X	10 SWG	1.32	50.8	X	3.2
2	X	1/4	2.41	50.8	X	6.35
2 1/4	X	16 SWG	0.76	57.1	X	1.6
2 1/4	X	10 SWG	1.49	57.1	X	3.2
2 1/4	X	1/4	2.75	57.1	X	6.35
2 1/2	X	16 SWG	0.86	63.5	X	1.6
2 1/2	X	10 SWG	1.67	63.5	X	3.2
2 1/2	X	1/4	3.11	63.5	X	6.35
2 3/4	X	10 SWG	1.85	69.8	X	3.2
2 3/4	X	1/4	3.43	69.8	X	6.35
3	X	16 SWG	1.05	76.2	X	1.6
3	X	10 SWG	2.03	76.2	X	3.2
3	X	1/4	3.78	76.2	X	6.35
3 1/2	X	16 SWG	1.20	88.9	X	1.6
3 1/2	X	10 SWG	2.37	88.9	X	3.2
3 1/2	X	1/4	4.48	88.9	X	6.35
4	X	16 SWG	1.38	101.6	X	1.6
4	X	10 SWG	2.73	101.6	X	3.2
4	X	1/4	5.17	101.6	X	6.35
4 1/2	X	10 SWG	3.08	114.3	X	3.2
4 1/2	X	1/4	5.86	114.3	X	6.35
5	X	12 SWG	2.82	127	X	2.6
5	X	10 SWG	3.44	127	X	3.2
5	X	1/4	6.50	127	X	6.35
6	X	10 SWG	4.12	152.4	X	3.2
6	X	1/4	7.95	152.4	X	6.35





## Aluminium Flat Bar

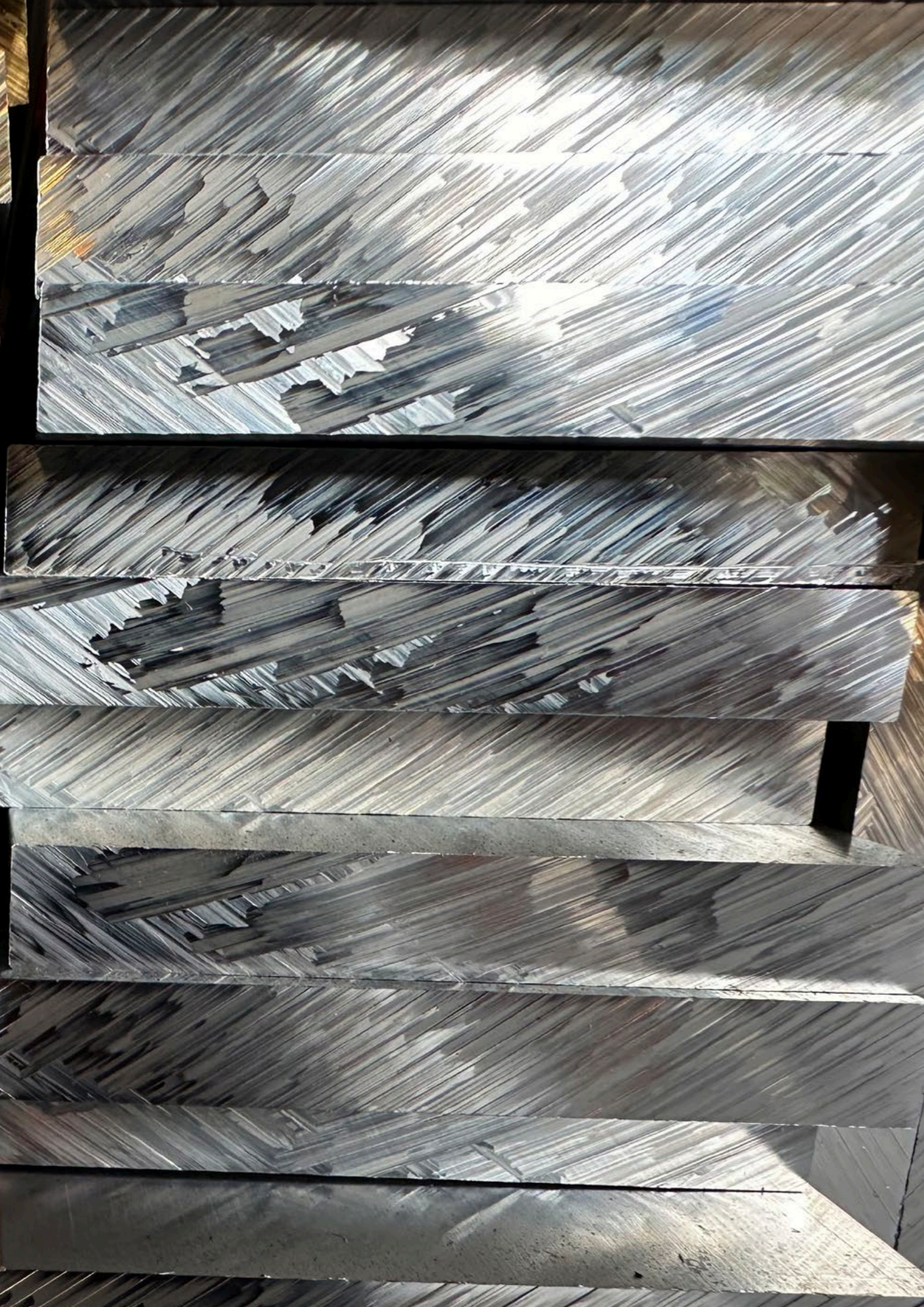
Finishes Available: Plain / Satin

### Aluminium Flat Bar

Our Aluminium Flat Bar is a staple for projects demanding strength, flexibility, and a lightweight profile. This flat, rectangular strip of aluminium is perfect for braces, brackets, frames, and base plates, offering a blend of durability and ease of machining.

Its resistance to corrosion makes it suitable for both indoor and outdoor applications, ensuring your projects stand the test of time.

Imperial Size O.D Wall	Weight Kg/M	Metric Size O.D Wall	Imperial Size O.D Wall	Weight Kg/M	Metric Size O.D Wall
3/8 X 1/8	0.08	9.5 X 3.2	1 1/4 X 3/16	0.41	31.75 X 4.76
3/8 X 1/4	0.16	9.5 X 6.35	1 1/4 X 1/4	0.55	31.75 X 6.35
1/2 X 1/8	0.11	12.7 X 3.2	1 1/4 X 5/16	0.69	31.75 X 7.94
1/2 X 3/16	0.16	12.7 X 4.76	1 1/4 X 3/8	0.82	31.75 X 9.52
1/2 X 1/4	0.22	12.7 X 6.35	1 1/4 X 1/2	1.10	31.75 X 12.2
1/2 X 3/8	0.33	12.7 X 9.52	1 1/4 X 5/8	1.37	31.75 X 15.9
5/8 X 1/8	0.14	15.9 X 3.2	1 1/4 X 3/4	1.65	31.75 X 19
5/8 X 3/16	0.20	15.9 X 4.76	1 1/4 X 1	2.20	31.75 X 25.4
5/8 X 1/4	0.27	15.9 X 6.35	1 1/2 X 1/16	0.16	38.1 X 1.6
5/8 X 3/8	0.41	15.9 X 9.5	1 1/2 X 1/8	0.33	38.1 X 3.2
5/8 X 1/2	0.55	15.9 X 12.7	1 1/2 X 3/16	0.49	38.1 X 4.76
3/4 X 1/16	0.08	19 X 1.6	1 1/2 X 1/4	0.66	38.1 X 6.35
3/4 X 1/8	0.16	19 X 3.2	1 1/2 X 5/16	0.82	38.1 X 7.94
3/4 X 3/16	0.25	19 X 4.76	1 1/2 X 3/8	0.99	38.1 X 9.52
3/4 X 1/4	0.33	19 X 6.35	1 1/2 X 1/2	1.32	38.1 X 12.7
3/4 X 5/16	0.41	19 X 7.95	1 1/2 X 5/8	1.65	38.1 X 15.9
3/4 X 3/8	0.49	19 X 9.52	1 1/2 X 3/4	1.98	38.1 X 19
3/4 X 1/2	0.66	19 X 12.7	1 1/2 X 1	2.63	38.1 X 25.4
3/4 X 5/8	0.82	19 X 15.9	1 1/2 X 1 1/4	3.28	38 X 31.75
7/8 X 1/8	0.19	22.2 X 3.2	1 3/4 X 1/8	0.38	44.5 X 3.2
7/8 X 3/16	0.29	22.2 X 4.76	1 3/4 X 3/16	0.58	44.5 X 4.76
7/8 X 1/4	0.38	22.2 X 6.35	1 3/4 X 1/4	0.77	44.5 X 6.35
7/8 X 3/8	0.58	22.2 X 9.52	1 3/4 X 3/8	1.152	44.5 X 9.52
7/8 X 1/2	0.77	22.2 X 12.7	1 3/4 X 1/2	1.54	44.5 X 12.7
1 X 1/16	0.112	25.4 X 1.6	1 3/4 X 5/8	1.92	44.5 X 15.87
1 X 1/8	0.22	25.4 X 3.2	1 3/4 X 3/4	2.29	44.5 X 19
1 X 3/16	0.33	25.4 X 4.76	1 3/4 X 1	3.07	44.5 X 25.4
1 X 1/4	0.44	25.4 X 6.35	1 3/4 X 1 1/4	3.82	44.5 X 31.75
1 X 5/16	0.55	25.4 X 7.95	2 X 1/8	0.44	50.8 X 3.2
1 X 3/8	0.66	25.4 X 9.52	2 X 3/16	0.66	50.8 X 4.76
1 X 1/2	0.88	25.4 X 12.7	2 X 1/4	0.88	50.8 X 6.35
1 X 5/8	1.10	25.4 X 15.9	2 X 5/16	1.10	50.8 X 7.94
1 X 3/4	1.32	25.4 X 19	2 X 3/8	1.32	50.8 X 9.52
1 1/4 X 1/8	0.27	31.75 X 3.2	2 X 1/2	1.76	50.8 X 12.7



## Aluminium Flat Bar

Finishes Available: Plain / Satin

Imperial Size O.D Wall			Weight Kg/M	Metric Size O.D Wall			Imperial Size O.D Wall			Weight Kg/M	Metric Size O.D Wall		
2	X	5/8	2.20	50.8	X	15.9	4	X	1/8	0.88	101.6	X	3.2
2	X	3/4	2.63	50.8	X	19	4	X	3/16	1.32	101.6	X	4.76
2	X	1	3.512	50.8	X	25.4	4	X	1/4	1.76	101.6	X	6.35
2	X	1.1/4	4.50	50.8	X	31.75	4	X	3/8	2.63	101.6	X	9.52
2	X	1.1/2	5.27	50.8	X	38.1	4	X	1/2	3.51	101.6	X	12.7
2.1/4	X	1/4	0.99	57.15	X	6.35	4	X	5/8	4.39	101.6	X	15.9
2.1/2	X	1/8	0.55	63.5	X	3.2	4	X	3/4	5.27	101.6	X	19
2.1/2	X	3/16	0.82	63.5	X	4.76	4	X	1	7.02	101.6	X	25.4
2.1/2	X	1/4	1.10	63.5	X	6.35	4	X	1.1/4	8.74	101.6	X	31.75
2.1/2	X	3/8	1.652	63.5	X	9.52	4	X	1.1/2	10.53	101.6	X	38.1
2.1/2	X	1/2	2.20	63.5	X	12.7	4	X	2	14.05	101.6	X	50.8
2.1/2	X	5/8	2.72	63.5	X	15.87	5	X	1/4	2.2	127	X	6.35
2.1/2	X	3/4	3.33	63.5	X	19	5	X	3/8	3.29	127	X	9.52
2.1/2	X	1	4.39	63.5	X	25.4	5	X	1/2	4.39	127	X	12.7
2.1/2	X	1.1/4	5.48	63.5	X	31.75	5	X	5/8	5.49	127	X	15.87
2.1/2	X	1.1/2	6.58	63.5	X	38.1	5	X	3/4	6.58	127	X	19
2.1/2	X	2	8.74	63.5	X	50.8	5	X	1	8.75	127	X	25.4
3	X	1/8	0.66	76.2	X	3.2	5	X	1.1/4	10.89	127	X	31.75
3	X	3/16	0.99	76.2	X	4.76	5	X	2	17	127	X	50.8
3	X	1/4	1.32	76.2	X	6.35	6	X	1/8	1.32	152.4	X	3.2
3	X	5/16	1.64	76.2	X	7.93	6	X	1/4	2.63	152.4	X	6.35
3	X	3/8	1.98	76.2	X	9.52	6	X	3/8	3.96	152.4	X	9.52
3	X	1/2	2.63	76.2	X	12.7	6	X	1/2	5.27	152.4	X	12.7
3	X	5/8	3.33	76.2	X	15.9	6	X	3/4	7.92	152.4	X	19.05
3	X	3/4	3.96	76.2	X	19	6	X	1	10.5	152.4	X	25.4
3	X	1	5.27	76.2	X	25.4			5.42	200	X	10	
3	X	1.1/4	6.56	76.2	X	31.75	8	X	1/4	3.49	203.2	X	6.35
3	X	1.1/2	7.90	76.2	X	38.1	8	X	1/2	6.97	203.2	X	12.7
3	X	2	10.53	76.2	X	50.8							
3.1/2	X	1/4	1.54	88.9	X	6.35							
3.1/2	X	1/2	3.07	88.9	X	12.7							
3.1/2	X	3/4	4.59	88.9	X	19.05							
3.1/2	X	1	6.12	88.9	X	25.4							
3.1/2	X	1.1/2	9.18	88.9	X	38.1							



## Aluminium Square Tubes

Finishes Available: Plain / Satin

### Aluminium Square Tubes

Explore the possibilities with Aluminium Square Tubes from Orion Alloys Ltd, where strength meets versatility. These hollow, square-shaped profiles are designed for structural applications, frames, and supports, providing a lightweight yet robust solution.

Their uniform shape allows for easy fabrication and assembly, making them a preferred choice for a wide range of projects, from construction to custom furniture.

Imperial Size						Weight Kg/M	Metric Size								
A	B	C					A	B	C						
1/2	X	1/2	X	16	SWG	0.20	12.7	X	12.7	X	1.6				
5/8	X	5/8	X	16	SWG	0.25	15.87	X	15.87	X	1.6				
3/4	X	3/4	X	16	SWG	0.32	19	X	19	X	1.6				
3/4	X	3/4	X	10	SWG	0.56	19	X	19	X	3.2				
						.050	25	X	25	X	2				
1	X	1	X	16	SWG	0.42	25.4	X	25.4	X	1.6				
1	X	1	X	10	SWG	0.78	25.4	X	25.4	X	3.2				
						0.46	30	X	30	X	1.5				
1 1/4	X	1 1/4	X	16	SWG	0.54	31.75	X	31.75	X	1.6				
1 1/4	X	1 1/4	X	10	SWG	0.98	31.75	X	31.75	X	3.2				
1 1/2	X	1 1/2	X	16	SWG	0.67	38.1	X	38.1	X	1.6				
1 1/2	X	1 1/2	X	10	SWG	1.22	38.1	X	38.1	X	3.2				
1 1/2	X	1 1/2	X	3/16		1.71	38.1	X	38.1	X	4.76				
						0.62	40	X	40	X	1.5				
						1.21	40	X	40	X	3				
						1.56	40	X	40	X	4				
1 3/4	X	1 3/4	X	10	SWG	1.45	44.4	X	44.4	X	3.2				
2	X	2	X	16	SWG	0.87	50.8	X	50.8	X	1.6				
2	X	2	X	10	SWG	1.70	50.8	X	50.8	X	3.2				
2	X	2	X	3/16		2.38	50.8	X	50.8	X	4.76				
2	X	2	X	1/4		3.06	50.8	X	50.8	X	6.35				
						2.43	60	X	60	X	4				
						2.98	60	X	60	X	5				
2 1/2	X	2 1/2	X	10	SWG	2.14	63.5	X	63.5	X	3.2				
3	X	3	X	10	SWG	2.52	76.2	X	76.2	X	3.2				
3	X	3	X	1/4		4.81	76.2	X	76.2	X	6.35				
						2.50	80	X	80	X	3				
4	X	4	X	10	SWG	3.49	101.6	X	101.6	X	3.2				
4	X	4	X	1/4		6.56	101.6	X	101.6	X	6.35				
						6.23	120	X	120	X	5				
						4.76	150	X	150	X	3				



## Aluminium Rectangular Tubes

Finishes Available: Plain / Satin

### Aluminium Rectangular Tubes

Orion Alloys Ltd introduces Aluminium Rectangular Tubes, combining lightweight properties with structural integrity. These hollow sections, with their rectangular shape, are designed for a broad spectrum of applications, including framing, railings, and architectural features.

Their versatility and ease of installation make them an ideal choice for projects requiring a combination of strength, aesthetics, and durability.

Imperial Size						Weight Kg/M	Metric Size						
A	B	C					A	B	C				
1	X	1/2	X	16	SWG	0.42	25.4	X	12.7	X	1.6		
						0.45	30	X	15	X	2		
						0.50	30	X	20	X	2		
1 1/2	X	3/4	X	16	SWG	0.48	38.1	X	19	X	1.6		
1 1/2	X	3/4	X	10	SWG	0.89	38.1	X	19	X	3.2		
1 1/2	X	1	X	16	SWG	0.53	38.1	X	25.4	X	1.6		
1 1/2	X	1	X	10	SWG	1.01	38.1	X	25.4	X	3.2		
						0.61	40	X	20	X	2		
						1.20	50	X	30	X	3		
2	X	1	X	10	SWG	1.24	50.8	X	25.4	X	3.2		
2	X	1 1/2	X	10	SWG	1.45	50.8	X	38.1	X	3.2		
						0.93	60	X	30	X	2		
						1.53	60	X	40	X	3		
						1.67	63.5	X	38.1	X	3.2		
2 1/2	X	2	X	10	SWG	1.44	63.5	X	50.8	X	3.2		
3	X	1	X	10	SWG	1.73	76.2	X	25.4	X	3.2		
3	X	1 1/2	X	10	SWG	1.91	76.2	X	38.1	X	3.2		
3	X	1 3/4	X	10	SWG	2.02	76.2	X	44.4	X	3.2		
3	X	2	X	10	SWG	2.14	76.2	X	50.8	X	3.2		
						2.43	80	X	40	X	4		
						2.86	80	X	60	X	4		
4	X	1	X	10	SWG	2.10	101.6	X	25.4	X	3.2		
4	X	1 3/4	X	10	SWG	2.49	101.6	X	44.4	X	3.2		
						3.79	100	X	50	X	5		
4	X	2	X	10	SWG	2.56	101.6	X	50.8	X	3.2		
4	X	2	X	1/4		4.81	101.6	X	50.8	X	6.35		
4	X	3	X	10	SWG	3.02	101.6	X	76.2	X	3.2		
						1.69	120	X	40	X	2		
						3.81	120	X	60	X	4		
5	X	2	X	1/4		5.68	127	X	50.8	X	6.35		
6	X	2	X	10	SWG	3.47	152.4	X	50.8	X	3.2		
6	X	2	X	1/4		6.58	152.4	X	50.8	X	6.35		



## Aluminium Sheet, White Painted Sheet and Treadplate

At Orion Alloys, our Aluminium Sheet stands as a beacon of versatility and durability in a wide array of applications. Crafted from high-quality aluminium, these sheets boast excellent formability, corrosion resistance, and weldability, making them ideal for both functional and decorative uses. Its ease of cutting and shaping allows for customisation in projects ranging from intricate machine parts to expansive architectural designs.

Our Aluminium White Painted Sheet is a versatile solution that combines the inherent benefits of aluminium with a sleek, protective white finish. This product is designed to cater to applications requiring a clean aesthetic along with durability and corrosion resistance.

Orion Alloys' Aluminium Five Bar Treadplate is a robust material characterised by its distinctive pattern of five raised bars, offering enhanced grip and anti-slip properties. Its rugged construction makes it suitable for a wide range of applications, including flooring in industrial settings, stair treads, walkways, and vehicle modifications. Beyond its practical benefits, the five bar pattern adds a dynamic aesthetic to any project.

## Aluminium Sheet

Finishes Available: Plain / Satin

Thickness	Kgs/Sheet				
	2M X 1M	2.5M X 1.25M	3M x 1.25M	3M X 1.5M	4M X 2M
0.7mm	3.8	6		8.47	
0.9mm	4.81	7.58		10.9	
1.0mm	5.42	8.47		12.01	
1.2mm	6.61	10.3		14.78	
1.5mm	8.13	12.7		18.17	
2.0mm	10.8	16.9	20.5	24.02	43.4
2.5mm	13.5	21.2		30.18	
3.0mm	16.3	25.4	30.5	36.35	65
4.0mm	21.68	33.9		48.36	
5.0mm	27.1	42.35		60.37	
6.0mm	32.52	51		72.7	
8.0mm	43.19	67.48		96.72	
10.0mm	54	84.4		121.0	
12.0mm	64.79	101.2		145.4	

## White Painted Sheet 3105

Kgs/Sheet	
Thickness	2.5M X 1.25M
1.2mm	10.3
1.5mm	12.7

## Aluminium 5 Bar Treadplate

Thickness on Plain mm	Size mm	Weight Kg/Sheet
1.5	2500 x 1250	13.5
	2000 X 1000	13.1
2	2500 X 1250	20.4
	3000 X 1500	29.4
3	2000 X 1000	18.5
	2500 X 1250	28.8
4.5	3000 X 1500	41.6
	2000 X 1000	26
6	2500 X 1250	41.6
	3000 X 1500	59.9
6	2000 X 1000	34.7
	2500 X 1250	54.4
	3000 X 1500	78.2



**ORION**  
ALLOYS

Tel: **01279 434422** • email: [enquiries@orionalloys.com](mailto:enquiries@orionalloys.com) • [www.orionalloys.com](http://www.orionalloys.com)

Orion Alloys Ltd, Unit A1  
Riverway Industrial Estate  
Riverway, Harlow, Essex, CM20 2DP

Company Reg: No: 3521544    Vat. Reg. 512 3641 82



QUALITY  
MANAGEMENT