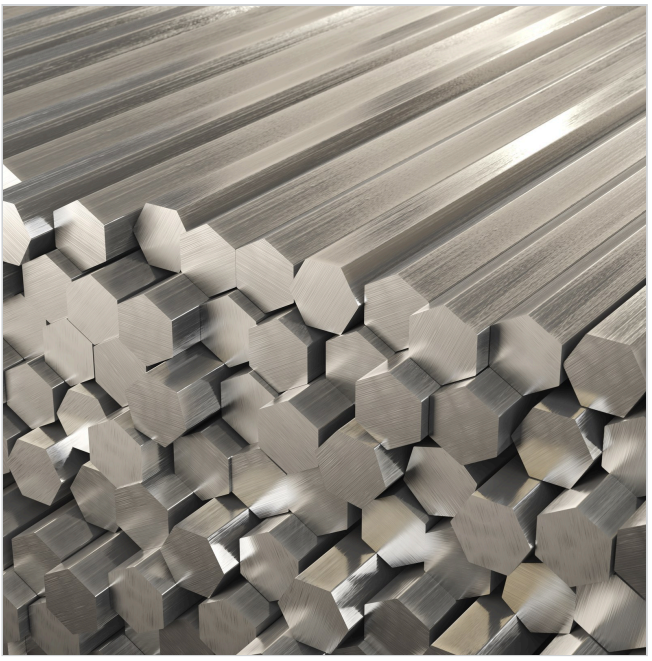
5251 Aluminium Bar

Smiths Advanced Metals

Excellent Corrosion Resistance

5251 medium strength aluminium alloy.



5251 aluminium bar offers medium to high strength with very good corrosion resistance, particularly in seawater and industrial atmospheres.

The alloy is non-heat-treatable and gains strength through cold working. It offers good cold formability, good weldability and medium to high fatigue strength, together with good thermal conductivity and low density: at 2.70 g/cm^3, it weighs roughly a third as much as steel.

The product is supplied to BS L44 and finds typical use in marine, aerospace and offshore structures, as well as in welded fabrications. Anodising adds further protection where conditions are demanding.

We stock 5251 aluminium bars to BS L44 in a broad range of sizes, including round, square, flat and hexagon bar.

Key Applications

- **Aircraft components**
- **Welded structures**
- **Offshore applications**
- **Pressure vessels**
- **Architectural fascias**

Benefits

- **Very good corrosion resistance**
- **Good weldability & cold formability**
- **Medium to high fatigue strength**

Grades / Specifications

- **BS L44**
- **EN AW-5251 (AlMg2Mn0.3)**
- **UNS A95251**

* Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others (ea)	Others (total)	Al
min.				0.10	1.70						Rem
max.	0.40	0.50	0.15	0.50	2.40	0.15	0.15	0.15	0.05	0.15	

* As per BS L44

Metallurgical Support

Our UKAS Accredited Testing Laboratory is unique to the UK stockholding sector, and we provide comprehensive metallurgical support, including an extensive range of testing services.

Processing

We supply products in both metric and imperial sizes and process your aluminium bars in-house. We stock materials in closer incremental sizes, which results in the supply of engineering materials where the need to machine the raw material down is not required.

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bsi ISO 9001 Quality Management Systems CERTIFIED
AS/EN 9100 Aviation Space and Defence CERTIFIED
EN 9120 Aviation Space and Defence CERTIFIED
UKAS TESTING 1930

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.

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