

SPECIFICATIONS

Commercial	5251 - Obsolete
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Applications:

Nameplates, traffic (road) signs, architectural paneling. Welded tubes, chemical industry, irrigation. Offshore applications, welded structures. Pressure vessels, aircraft components.

Characteristic Properties:

Very good corrosion resistance to seawater and marine and industrial atmosphere. Very good weldability. Medium high strength alloy for sheet products slightly lower than 5086. Medium high fatigue strength. Good cold formability.

CHEMICAL COMPOSITION

BS 5L44(1985) Alloy L44	
Element	% Present
Magnesium (Mg)	1.7 - 2.4
Iron (Fe)	0.5 max
Manganese (Mn)	0.1 - 0.5
Silicon (Si)	0.4 max
Others (Total)	0.15 max
Zinc (Zn)	0.15 max
Titanium (Ti)	0.15 max
Copper (Cu)	0.15 max
Chromium (Cr)	0.15 max
Other (Each)	0.05 max
Aluminium (Al)	Balance

Forging stock: Cast billets and slabs for hot working and extruded bars, sections and hot-rolled plate for forging shall be supplied non-heat treated.

Bars for machining and extruded sections shall be supplied in one of the following conditions:

*Extruded and subsequently straightened;
Extruded and drawn and subsequently straightened;
Rolled and drawn and subsequently straightened.*

Note: The material may be annealed before or after straightening.

ALLOY DESIGNATIONS

Aluminium alloy L44 - 5251 is covered by Standard BS EN 5L44 (1985) - Now Obsolete

TEMPER TYPES

The most common tempers for L44 - 5251 aluminium forging stock as as-forged ('F')

- F - As fabricated

SUPPLIED FORMS

L44 - 5251 aluminium is supplied as forging stock made from cast billet, extrusion or rolled plate

- Bar
- Extrusions
- Forgings
- Castings
- Plate

MECHANICAL PROPERTIES

BS 5L44(1985) Forging Stock	
Property	Value
Elongation A50 mm	14 Min %
Tensile Strength	170 Min N/mm ²
Elongation A	16 Min %
0.2% Proof Stress	60 Min N/mm ²

Forgings, unless otherwise agreed in accordance with BS L100, shall be supplied as forged or annealed.

No heat treatment is required.

This specification covers forging stock, bars, extruded sections and forgings of aluminium - 2.25% magnesium alloy.

CONTACT

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REVISION HISTORY

Datasheet Updated	09 January 2014
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DISCLAIMER

This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

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Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.