Aluminium Alloy
L80 '0' Sheet

GOULD ALLOYS
THE LEADING EDGE IN METALS

SPECIFICATIONS

Commercial	5251 - Obsolete

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

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

CHEMICAL COMPOSITION

BS 3L80(1985)
Alloy L80

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

The material shall be supplied annealed (O).

ALLOY DESIGNATIONS

Aluminium alloy BS L80 - 5251 is covered by standard BS EN 3L80 (1985)

TEMPER TYPES

The most common tempers for L80 - 5251 aluminium are:
- O - Soft

SUPPLIED FORMS

L80 - 5251 is supplied in the following forms:
- Sheet
- Strip

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.69 g/cm³
Melting Point	650 °C
Thermal Expansion	23.6 x10^{-6} /K
Modulus of Elasticity	70.0 GPa
Thermal Conductivity	149 W/m.K
Electrical Resistivity	37.5 % IACS

MECHANICAL PROPERTIES

BS 3L80(1985)
Sheet
0.4mm to 2.6mm

Property	Value
Elongation A50 mm	18 Min %
Tensile Strength	160 Min - 200 Max N/mm2
0.2% Proof Stress	60 Min N/mm2

Mechanical properties relate to material with a nominal thickness of 0.4mm up to and including 2.6mm. The specification contains other values for different material thicknesses.

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CONTACT

Address: Gould Alloys Ltd
Markham Lane
Markham Vale
Chesterfield
S44 5HS
United Kingdom
Tel: +44 (0) 1246 263300
Email: sales@gouldalloys.co.uk
Web: www.gouldalloys.co.uk

REVISION HISTORY

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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.

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