



Estudio Técnico del Sistema Bluebox

ANEXO “E.1”. Metal Bracket AL5251 PN 5972-252-737.

Agosto 2021	Revisión: Original	
Link Conexión Aérea S.A. de C.V.		



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PÁGINA DEJADA INTENCIONALMENTE EN BLANCO

Agosto 2021

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Link Conexión Aérea S.A. de C.V.



PHOENIX PRECISION LIMITED
 CROMPTON ROAD
 SOUTHFIELD INDUSTRIAL ESTATE
 GLENROTHES
 FIFE KY6 2SF
 Tel: 01592 772077 VAT No: 400 9944 61
 Fax: 01592 773535

Despatch Note

400 9944 61

GB

Account code
BLUEBOX

Delivery no
130895

Delivery date
31/08/2018

Our Sales no
32424

Your order no
ph08082018

Deliver to

BLUEBOX AVIATION SYSTEMS LTD
 ESTANTIA HOUSE
 PITREAVIE DRIVE
 DUNFERMLINE

KY11 8US

Invoice to

BLUEBOX AVIATION SYSTEMS LTD
 ESTANTIA HOUSE
 PITREAVIE DRIVE
 DUNFERMLINE

KY11 8US

Item	Part no	Issue	UOM	Qty ordered	Qty balance	Qty despatched
1	5972-252-737 BRKT		EACH	1,000	0	500

Declaration of Conformity (C of C)

The whole of the supplies detailed heron have been manufactured tested and inspected in accordance with the conditions and requirements of the contract or purchase order, unless otherwise noted conform in all respects to the specification(s) and drawing(s) relevant thereto. All goods are RoSH2 Compliant.

Received in good condition by

Signature :



Print name :

J. GORMAN

SPECIFICATIONS

Commercial	5251
EN	5251

Aluminium alloy 5251 is a medium strength alloy possessing good ductility and therefore good formability. Alloy 5251 is known for work hardening rapidly and is readily weldable. It also possesses high corrosion resistance particularly in marine environments.

Applications

5251 is typically used in:

- ~ Boats
- ~ Panelling and pressings
- ~ Marine structures
- ~ Aircraft parts
- ~ Vehicle panels
- ~ Furniture tubing
- ~ Silos
- ~ Containers

Mechanical Properties shown are for H22 condition - Mechanical properties for other tempers are shown on page 2.

CHEMICAL COMPOSITION

BS EN573-3:2009 Alloy 5251	
Element	% Present
Magnesium (Mg)	1.70 - 2.40
Manganese (Mn)	0.10 - 0.50
Iron (Fe)	0.0 - 0.50
Silicon (Si)	0.0 - 0.40
Titanium (Ti)	0.0 - 0.15
Others (Total)	0.0 - 0.15
Chromium (Cr)	0.0 - 0.15
Copper (Cu)	0.0 - 0.15
Zinc (Zn)	0.0 - 0.15
Other (Each)	0.0 - 0.05
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Alloy 5251 corresponds to the following standard designations and specifications, **although may not be a direct equivalent:**

Al Mg2
Al 2.0Mg 0.3Mn

TEMPER TYPES

The most common tempers for 5251 aluminium are:

- H24 - Work hardened by rolling then annealed to half hard
- H26 - Work hardened by rolling then annealed to three-quarter hard
- O - Soft
- H22 - Work hardened by rolling then annealed to quarter hard

SUPPLIED FORMS

- Plate
- Sheet

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.69 g/cm ³
Melting Point	625 °C
Thermal Expansion	25 x10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	134 W/m.K
Electrical Resistivity	0.044 x10 ⁻⁶ Ω .m

MECHANICAL PROPERTIES

BS EN 485-2:2008 Sheet and Plate 0.2mm to 25mm	
Property	Value
Proof Stress	120 Min MPa
Tensile Strength	190 - 230 MPa
Hardness Brinell	56 HB

Properties above are for material in the H22 condition

WELDABILITY

Aluminium alloy 5251 is a readily weldable alloy. The recommended filler wire is 5356 when welding alloy 5251 to itself, 6XXX series alloys, 7XXX series alloys and most other 5XXX alloys. When welding alloy 5251 to 5005, 5020, 1XXX series or 3XXX series alloys, the recommended filler wire is 4043.

Weldability – Gas: Very Good
Weldability – Arc: Very Good
Weldability – Resistance: Very Good
Brazability: Poor

FABRICATION

Workability – Cold: Very Good
Machinability: Average

CONTACT

Address: Please make contact directly with your local service centre, which can be found via the Locations page of our web site
Web: www.aalco.co.uk

REVISION HISTORY

Datasheet Updated 18 July 2019

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.

Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

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