

COMMONWEALTH AIRCRAFT CORPORATION

Proprietary Limited

MELBOURNE



MATERIAL SPECIFICATION

CA.241A

ALUMINIUM ALLOY TUBES

5.5% Zn, 2.5% Mg, 1.6%, Cu. - Alloy 7075.

1. DESCRIPTION

This specification covers the requirements for a heat treatable Aluminium Alloy where high strength is required and where good resistance to corrosion is not important.

2. INSPECTION AND TESTING PROCEDURE

This specification shall be used in conjunction with Sections One and Eleven of British Standard L 100.

3. CHEMICAL COMPOSITION

The Chemical Composition shall be:

Element	Percent	
	Min.	Max.
Zinc	5.1	6.1
Magnesium	2.1	2.9
Copper	1.2	2.0
Chromium	0.18	0.40
Iron	-	0.70
Silicon	-	0.50
Manganese	-	0.30
Titanium	-	0.20
Other elements each	-	0.05
Other elements total	-	0.15
Aluminium	Remainder.	

ISSUE	DATE	WRITTEN	APPROVED			CA. 241 Issue A SUPERSEDES CA. 241
			C.A.C.	R. A. A. F.	D.Q.C.	
ORIG.	Mar. '54	R. C.	J. C. E.	G. F. D.	H. J.	
REV.	Mar. '67	I. A. R.	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	

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4. CONDITION

Material shall be supplied in the Solution Heat Treated and Artificially Aged condition.

5. HEAT TREATMENT

Solution Treatment: - 460 - 470°C quench in cold water.

Precipitation Treatment: - 115 - 130°C for a minimum of 22 hrs.

6. MECHANICAL PROPERTIES

Tensile Test

The Mechanical Properties obtained from test pieces selected and prepared in accordance with the relevant requirements of British Standard L 100 shall not be less than the following values: -

Designation	. 2% Proof Stress tons/sq. inch.	Tensile Strength tons/sq. inch	Elongation per cent on 2 inches
CA. 241-2	30 min.	34 min	7 min.

7. TOLERANCES

Tolerances shall be in accordance with the relevant sections of CA. 702 (latest issue)

8. IDENTIFICATION

The material shall be marked in accordance with the requirements of British Standard L 100, Section Eleven, Clauses 9.1 and 9.2

9. TEST REPORTS AND RELEASE NOTES

Test Reports and Release Notes shall be supplied to Commonwealth Aircraft Corporation Pty. Ltd. in duplicate covering each delivery of material.

10. PROCUREMENT

The following materials may be purchased for testing to this specification.

QQ-A-200/11 - T6, T6510, T6511.

Alcoa 7075 - T6

UNI. 3735 P-Al Zn 5. 8 Mg Cu.