Table 1 Chemical Composition of Wrought Aluminium and Aluminium Alloys for Drawn Tubes for General Engineering Purposes

(*Clause* 8.1)

(Composition limits are in percent maximum unless shown otherwise)

Designation	Aluminium	Copper	Magnesium	Silicon	Iron	Manganese	Zinc	Titanium[1]	Chromium	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1 9000	99·0 *Min*	0·1	—	0·5	0·6	0·1	—	—	—	Ti+V=0·07 T. I.[2]=1·00
1 9500	99·5 *Min*	0·05	—	0·3	0·4	0·05	—	—	—	Ti+V=0·07 T. I.[2]=0·50
24 345	Remainder	3·8-5·0	0·2-0·8	0·5-1·2	0·7	0·3-1·2	0·2	0·3	0·3	Ti+Cr=0·3
31 000	Remainder	0·1	0·1	0·6	0·7	0·8-1·5	0·2	0·2	0·2	—
52 000	Remainder	0·1	1·7-2·6	0·6	0·5	0·5	0·2	0·2	0·25	Cr+Mn=0·5
63 400	Remainder	0·1	0·4-0·9	0·3-0·7	0·6	0·3	0·2	0·2	0·1	—
64 430	Remainder	0·1	0·4-1·2	0·6-1·3	0·6	0·4-1·0	0·1	0·2	0·25	—
65 028	Remainder	0·15-0·4	0·7-1·2	0·4-0·8	0·6	0·2	0·2	0·2	0·15-0·35	—
65 032	Remainder	0·15-0·4	0·7-1·2	0·4-0·8	0·6	0·2-0·8	0·2	0·2	0·2	—

[1] Titanium also includes other grain refining elements, if any.

[2] T. I. = Total impurities.

NOTE — It is the responsibility of the supplier to ensure that any element not specifically limited is not present in an amount such as is generally accepted as having an adverse effect on the product. If the purchaser's requirements necessitate limits for any element not specified, the same should be agreed to between the supplier and the purchaser.

Table 2 Mechanical Properties of Aluminium Alloy Drawn Tubes for General Engineering Purposes

(*Clause* 9.1)

Designation	Condition	Size (Wall Thickness)		0·2 Percent Proof Stress	Tensile Strength		Elongation on Gauge Length of 50 mm
		Over	Up to and Including	*Min*	*Min*	*Max*	*Min*
		mm	mm	MPa	MPa	MPa	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
19 000	0	—	12·0	—	—	105	—
	H×8	—	12·0	—	120	—	—
19 500	0	—	12.0	—	—	95	—
	H×8	—	12·0	—	110	—	—
24 345	T4[1]	—	10·0	290	395	—	8
31 000	0	—	10·0	35	—	110	24
	H×4	—	10·0	120	140	—	5
52 000	0	—	10·0	—	—	200	18
	H×4	—	10·0	170	225	—	5
63 400	0	—	10·0	—	—	155	—
	T4	—	10·0	95	150	—	15
	T6	—	10·0	170	200	—	8
64 438	T4	—	10·0	110	215	—	12
	T6	—	6·0	245	310	—	7
		6·0	10·0	230	310	—	9
65 028	T4	—	6·0	110	215	—	12
		6·0	10·0	110	215	—	14
	T6	—	6·0	230	295	—	7
		6·0	10·0	215	295	—	9
65 032	T4	—	6·0	110	215	—	12
		6·0	10·0	110	215	—	14
	T6	—	6·0	230	295	—	7
		6·0	10·0	215	295	—	9

NOTE — 1 MPa = 1 N/mm² = 0·102 kgf/mm².

[1] If the user reheat-treats this material, the minimum 0·2 percent proof stress and tensile strength may be reduced to 230 MPa and 385 MPa respectively. Similar properties may also be obtained when tubes are supplied in the annealed condition and subsequently heat-treated.