AMS-B-317

Manufactured using the hot extrusion method through either the bridge/porthole type die or the die and mandrel process. The 6101 alloy in various tempers is covered.

Alloy and temper designations are in compliance with the latest version of ANSI H35.1

Tolerances for the tubes we supply are shown in the tolerance tab (*https://alfiniti.com/wp-content/uploads/2022/11/STANDARD-TOLERANCES-Extruded-Tube.pdf*) and are in compliance with the latest revision of ANSI H35.2 and Aluminum Standards and Data.

A complete copy of this specification may be purchased at *www.ASTM.org*

A copy of ANSI H35.1 and H35.2 is available from the American National Standards Institute @ *www.ansi.org*

A copy of the Aluminums Standards and Date is available from the Aluminum Association at *www.aluminum.org*

Chemical Composition Limits

Elements	Alloy Designation 6101 Composition, %
Silicon	0.30-0.7
Iron	0.50
Copper	0.10
Manganese	0.03
Magnesium	0.35-0.8
Chromium	0.03
Zinc	0.10
Boron	0.06
Other Elements	
Each	0.03
Total	0.10
Aluminum	remainder

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Tensile Property Limits

Temper	Specified Thickness in. [mm]	Tensile Strength, Ksi [Mpa]		Yield Strength, (0.2% offset), Ksi [Mpa]	
		min	max	min	max
T6	0.125-0.500 [3.20-12.50]	29.0 [200]	. . .	25.0 [170]	. . .
T61	0.125-0.749 [3.20-18.00]	20.0 [140]	. . .	15.0 [105]	. . .
	0.750-1.499 [18.01-35.00]	18.0 [125]		11.0 [75]	. . .
	1.500-2.000 [35.01-50.00]	15.0 [105]	. . .	8.0 [55]	. . .
T63	0.125-1.000 [3.20-25.00]	27.0 [185]	. . .	22.0 [150]	. . .
T64	0.125-1.000 [3.20-25.00	15.0 [105]	. . .	8.0 [55]	. . .
T65	0.125-0.749 [3.20-20.00	25.0 [170]	32.0 [221]	20.0 [140]	27.0 [185]
H111	0.250-2.000 [6.30-50.00	12.0 [85]	. . .	8.0 [55]	. . .