ASTM B483

Tube produced by drawing tube stock made by extrusion through a bridge/ porthole type die or by die and mandrel methods at option of manufacturer. The following are chemistries and mechanical properties of the alloys and tempers we supply.

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

Alloy	Silicon	Iron	Copper	Manganese	Magnesium	Chromium	Zinc	Titantium	Other Elements		Aluminum
									Each	Total	
1060	0.25	0.35	0.05	0.03	0.03	...	0.05	0.03	0.03	. . .	99.6
	0.95 Si + Fe										min
1100	0.6	0.7	0.05–0.20	0.05	...	...	0.10	. . .	0.05	0.15	99.00
3003	0.40–0.8	0.7	0.05–0.20	1.0–1.5	...	...	0.10	…	0.05	0.15	rem
6061	0.20–0.6	0.35	0.15–0.40	0.15	0.8–1.2	0.04–0.35	0.25	0.15	0.05	0.15	rem
6063			0.10	0.10	0.45–0.9	0.10	0.10	0.10	0.05	0.15	rem

Tensile Property Limits, Tube (US Customary)

Alloy and Temper	Specified Wall Thickness, in.	Tensile Strength, ksi				Elongation min, %	
		Ultimate		Yield (0.2 % Offset)			
		min	max	min	max	Full Section Specimen (2 in.)	Cut-out Specimen 4× Diameter
1060							
1060-O	0.010–0.500	8.5	13.5	2.5	. . .	. . .	. . .
1060-H12	0.010–0.500	10.0	. . .	4.0	. . .	. . .	. . .
1060-H14	0.010–0.500	12.0	. . .	10.0	. . .	. . .	. . .
1060-H18	0.010–0.500	16.0	. . .	13.0	. . .	. . .	. . .
1060-H113	0.010–0.500	8.5	. . .	2.5	. . .	. . .	. . .
1100							
1100-O	0.014–0.500	11.0	15.5	3.5	. . .	. . .	. . .
1100-H12	0.014–0.500	14.0	. . .	11.0	. . .	. . .	. . .
1100-H14	0.014–0.500	16.0	. . .	14.0	. . .	. . .	. . .
1100-H16	0.014–0.500	19.0	. . .	17.0	. . .	. . .	. . .
1100-H18	0.014–0.500	22.0	. . .	20.0	. . .	. . .	. . .

Tensile Property Limits, Tube (US Customary)

Alloy and Temper	Specified Wall Thickness, in.	Tensile Strength, ksi				Elongation min, %	
		Ultimate		Yield (0.2 % Offset)			
		min	max	min	max	Full Section Specimen (2 in.)	Cut-out Specimen 4× Diameter
3003							
3003-O	0.010–0.024	14.0	19.0	5.0	. . .	. . .	. . .
	0.025–0.049	14.0	19.0	5.0	. . .	30	20
	0.050–0.259	14.0	19.0	5.0	. . .	35	25
	0.260–0.500	14.0	19.0	5.0	. . .	. . .	30
3003-H12	0.010–0.500	17.0	. . .	12.0	. . .	. . .	. . .
3003-H14	0.010–0.024	20.0	. . .	17.0	. . .	3	. . .
	0.025–0.049	20.0	. . .	17.0	. . .	5	3
	0.050–0.259	20.0	. . .	17.0	. . .	8	4
	0.260–0.500	20.0	. . .	17.0	. . .	. . .	. . .
3003-H16	0.010–0.024	24.0	. . .	21.0	. . .	. . .	. . .
	0.025–0.049	24.0	. . .	21.0	. . .	3	2
	0.050–0.259	24.0	. . .	21.0	. . .	5	4
	0.260–0.500	24.0	. . .	21.0	. . .	. . .	. . .
3003-H18	0.010–0.024	27.0	. . .	24.0	. . .	2	. . .
	0.025–0.049	27.0	. . .	24.0	. . .	3	2
	0.050–0.259	27.0	. . .	24.0	. . .	5	3
	0.260–0.500	27.0	. . .	24.0	. . .	. . .	. . .

Tensile Property Limits, Tube (US Customary)

Alloy and Temper	Specified Wall Thickness, in.	Tensile Strength, ksi				Elongation min, %	
		Ultimate		Yield (0.2 % Offset)			
		min	max	min	max	Full Section Specimen (2 in.)	Cut-out Specimen 4× Diameter
6061							
6061-O	0.018–0.500	. . .	22.0	. . .	14.0	15	15
6061-T42	0.025–0.049	30.0	. . .	14.0	. . .	16	14
	0.050–0.259	30.0	. . .	14.0	. . .	18	16
	0.260–0.500	30.0	. . .	14.0	. . .	20	18
6061-T62	0.025–0.049	42.0	. . .	35.0	. . .	10	8
	0.050–0.259	42.0	. . .	35.0	. . .	12	10
	0.260–0.500	42.0	. . .	35.0	. . .	14	12
6061-T8	0.035–0.350	45.0	. . .	40.0	. . .	8	. . .

Tensile Property Limits, Tube (US Customary)

Alloy and Temper	Specified Wall Thickness, in.	Tensile Strength, ksi				Elongation min, %	
		Ultimate		Yield (0.2 % Offset)			
		min	max	min	max	Full Section Specimen (2 in.)	Cut-out Specimen 4× Diameter
6063							
6063-O	0.018–0.500	. . .	19.0	. . .	. . .	. . .	. . .
6063-T4 and T42	0.025–0.049	22.0	. . .	10.0	. . .	16	14
	0.050–0.259	22.0	. . .	10.0	. . .	18	16
	0.260–0.500	22.0	. . .	10.0	. . .	20	18
6063-T6 and T62	0.025–0.049	33.0	. . .	28.0	. . .	12	8
	0.050–0.259	33.0	. . .	28.0	. . .	14	10
	0.260–0.500	33.0	. . .	28.0	. . .	16	12
6063-T83	0.025–0.049	33.0	. . .	30.0	. . .	5	. . .
6063-T831	0.025–0.049	28.0	. . .	25.0	. . .	5	. . .
6063-T832	0.025–0.049	41.0	. . .	36.0	. . .	8	5
	0.025–0.049	40.0	. . .	35.0	. . .	8	5