



ASTM-B-429

Pipe or tube manufactured using extrusion by a bridge/porthole-type die or other methods. Alloys 6061 and 6063 in T6 temper are 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 Aluminum Standards and Data is available from the Aluminum Association at www.aluminum.org

Chemical Composition Limits

Alloy Designation	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Elements		AI
									Each	Total	
6005	0.6-0.9	0.35	0.10	0.10	0.40-0.6	0.10	0.10	0.10	0.05	0.15	rem
6005A	0.50-0.9	0.35	0.30	0.50	0.40-0.7	0.30	0.20	0.10	0.05	0.15	rem
6061	0.40-0.8	0.7	0.15-0.40	0.15	0.8-1.2	0.04-0.35	0.25	0.15	0.05	0.15	rem
6063	0.20-0.6	0.35	0.10	0.10	0.45-0.9	0.10	0.10	0.10	0.05	0.15	rem
6082	0.7-1.3	0.35	0.10	0.45-1.0	0.6-1.2	0.25	0.20	0.10	0.05	0.15	rem



Tensile Property Limits

Alloy-Temper	Specified Wall Thickness, in. [mm]	Tensile Strength, min, ksi [Mpa]	Yield Strength, min, ksi [Mpa]	Elongation, min, %		
				2 in. or 4x Diameter	50 mm	5x Diameter (5.65√A)
6005-T1	up through 0.500 [up through 12.5]	25.0 [170]	15 [105]	16	16	14
6005-T5	up through 0.124 [up through 3.20]	38.0 [260]	35.0 [240]	8	8	
	0.125-1.000 [3.20-25.0]	38.0 [260]	35.0 [240]	10	10	9
6005A-T1	up through 0.249 [up through 6.30]	25.0 [170]	14.5 [100]	15	15	...
6005A-T5	up through 0.249 [up through 6.30]	38.0 [260]	31.0 [215]	7	7	...
	0.25-0.999 [6.30-25.00]	38.0 [260]	31.0 [215]	9	9	8
6005A-T61	up through 0.249 [up through 6.30]	38.0 [260]	35.0 [240]	8	8	...
	0.250-1.000 [6.30-25.00]	38.0 [260]	35.0 [240]	10	10	0
6061-O	all	22.0 [150] max	16.0 [110] max	16	16	
6061-T1	up through 0.25	26.0 [180]	14.0 [95]	16	16	
6061-T4, T4510, T4511	all	26.0 [180]	16.0 [110]	16	16	14
6061-T6, T62, T6510, T6511	up through 0.249 [up through 6.30]	38.0 [260]	35.0 [240]	8	8	...
	0.250 and over [over 6.30]	38.0 [260]	35.0 [240]	10	10	9
6063-0	all	19 [130] max	...	18	18	
6063-T1	up through 0.500 [up through 12.50]	17.0 [115]	9.0 [60]	12	12	
	0.501-1.000 [12.50-25.00]	16.0 [110]	8.0 [55]	12	12	
6063-T4, T42	up through 0.500 [up through 25.00]	19.0 [130]	10.0 [70]	14	14	12
	0.501-1.000 [over 12.50 through 25.00]	18.0 [125]	9.0 [60]	14	...	12
6063-T5	up through 0.500 [up through 12.50]	22.0 [150]	16.0 [110]	8	8	
	0.501-1.000 [12.50-25.00]	21.0 [145]	15.0 [105]	8	8	
6063-T52	up through 1.000 [up through 25.00]	22.0 [150]	16.0-25.0			
	up through 0.124 [up through 3.20]	30 [205] max	[110-170] max	8	8	
6063-T6, T62	up through 0.124 [up through 3.20]	30.0 [205]	25.0 [170]	8	8	...
	0.125-1.00 [over 3.20 through 25.00]	30.0 [205]	25.0 [170]	10	10	9
6082-T6, T6511	0.200-1.00 [5.00-25.00]	45.0 [310]	38.0 [260]	8	8	7