



AMS-4173

6061-T-6511 Extrusions are manufactured by extruding solution heat treating stress relieving by stretching, straightening and precipitation heat treating.

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

Element	min	max
Silicon	0.40	0.8
Iron	--	0.7
Copper	0.15	0.40
Manganese	--	0.15
Magnesium	0.8	1.2
Chromium	0.04	0.35
Zinc	--	0.25
Titanium	--	0.15
Other Elements, each	--	0.05
Other Elements, total	--	0.15
Aluminum	remainder	

Minimum Tensile Properties, Inch/Pound Units

Least Thickness (bars, rods, wire, profiles) or Nominal Wall Thickness (tubing) Inches	Tensile Strength Ksi	Yield Strength at 0.2% Offset Ksi	Elongation in 2 Inches or 4D %
Up to 0.250, excl	38.0	35.0	8
0.250 and over	38.0	35.0	10



Minimum Tensile Properties, SI Units

Nominal Diameter or Least Thickness (bars, rods, wire, profiles) or Nominal Wall Thickness (tubing) Millimeters	Tensile Strength MPa	Yield Strength at 0.2% Offset Mpa	Elongation in 50.8 mm or 4D %
Up to 6.35, excl	262	241	8
6.35 an over	262	241	10