

## **Aluminum Extrusion Alloys**

Alloy	Characteristics	Suitable Applications	Major Alloying Elements %	Temper	Ultimate Tensile Strength PSI	Yield Tensile Strength PSI	Elongation in 2 Inches (%)
6063	Most economical. Excellent extrudability. Good corrosion resistance, finishing response, machinability, formability and weldability.	heat sinks	0.20 - 0.60 Si	T1 - as extruded	16,000	8,000	12
			Max 0.35 Fe 0.45 - 0.90 Mg	T4 - formable	18,000	9,000	14
				T5 - standard	21,000	15,000	8
				T6 - machinable	30,000	25,000	10
6463	Produces a bright, mirror-like, high quality finish. Good machinability and formability.	decorative trim applications	0.20 - 0.60 Si Max 0.15 Fe Max 0.21 Cu 0.45 - 0.65 Mg	T1 - as extruded	17,000	9,000	12
				T5 - standard	22,000	16,000	8
				T6 - machinable	30,000	25,000	10
6005A	Excellent extrudability and strength, low impact resistance, good finishing response, machinability, formability and weldability.	structural applications (comparable to 6061 with better extrudability properties and same mechanical properties)	0.50 - 0.75 Si Max 0.35 Fe 0.40 - 0.70 Mg	T1 - as extruded	25,000	15,000	16
				T5 - standard	38,000	35,000	10
				T61 - machinable; high strength	38,000	35,000	
6061	Excellent strength, corrosion resistance and machinabilty, poor finishing response, good formability and weldability.	transportation and structural applications	0.40 - 0.80 Si	T1 - as extruded	26,000	14,000	16
			Max 0.70 Fe 0.80 - 1.20 Mg	T4 - formable	26,000	16,000	16
				T6 - machinable	35,000	35,000	10