ALUMINUM-COPPER A206.0

ANSI AA NUMBER	A206.0		
Common Name (Not recommended)			
UNS Designation	A12060		
COMPOSITION PERCENT	**Min**		**Max**
Silicon (Si)			0.1
Iron (Fe)			0.1
Copper (Cu)	4.2		5.0
Manganese (Mn)	0.2		0.5
Magnesium (Mg)	0.15		0.35
Chromium (Cr)			
Nickel (Ni)			0.05
Zinc (Zn)			0.1
Titanium (Ti)	0.15		0.3
Tin (Sn)			0.05
Beryllium (Be)			
Silver (Ag)			
Other (Total)			0.15
NEAREST APPLICABLE CASTING STANDARDS			
ASTM (B Series)			
AMS	4236		4235
Federal (QQ-C- Series)			
Military (Mil-C- Series)			
TYPICAL PROPERTIES	**T4**		**T71**
Tensile Strength (ksi)	50		54
Yield Strength (.5% extension under load) (ksi)	30		45
Elongation (2 inch gauge length) (%)	10		3
Compressive Yield Strength (ksi)	38		
Hardness (Brinell) (HB @ 500kg)			
Shear Strength (ksi)	40		
Endurance Limit (K ksi)			
Modulus of Elasticity (K ksi)			
Density (lb/cu.in. @ 68F)	.101		
Electrical Conductivity (% IACS @ 68F)	30		
Thermal Conductivity (cal/sec/sq cm/cm/C @ 25C)	0.29		
Coefficient of Thermal Expansion (per F @ 68-212F)	10.7		
Coefficient of Thermal Expansion (per F @ 68-572F)			
Melting Range (Liquidus-Solidus)(F)	1058-1202		
Resistance to Hot Cracking	F		
Pressure Tightness	G		
Fluidity	G		
Solidification Shrinkage Tendency	F		
Strength at Elevated Temperatures	E		
Corrosion Resistance	F		
Machinability	E		
Polishing	E		
Gas Welding	F		
Arc Welding	F		
Brazing			
Normally Heat Treated	Yes		
Annodizing Appearance	VG		
Electroplating	E		

Applications: 201.0 & A206.0: Structural castings for automotive, truck and trailer, cylinder heads and pistons, gear and pump housings, aerospace housings, aircraft landing gear components, turbine and supercharger impellers, military castings requiring good ballistics.

Always use the design principles outlined on page two of this information sheet or at our website.
Consult your foundry early in the design process.
St. Paul Brass and Aluminum does not currently pour this alloy, but will consider it if purchased volumes justify the inventory.

St. Paul
Brass and Aluminum
Foundry
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