

ALUMINUM-ZINC 713.0

ANSI AA NUMBER	713.0		
Common Name (Not recommended)	613, Tenzaloy		
UNS Designation	A07130		
COMPOSITION PERCENT	Min		Max
Silicon (Si)			0.25
Iron (Fe)			1.1
Copper (Cu)	0.4		1.0
Manganese (Mn)			0.6
Magnesium (Mg)	0.2		0.5
Chromium (Cr)			0.35
Nickel (Ni)			0.15
Zinc (Zn)	7		8
Titanium (Ti)			0.25
Tin (Sn)			
Beryllium (Be)			
Silver (Ag)			
Other (Total)			0.25
NEAREST APPLICABLE CASTING STANDARDS			
ASTM (B Series)			
AMS	4236		4235
Federal (QQ-C- Series)			
Military (Mil-C- Series)			
TYPICAL PROPERTIES	F		
Tensile Strength (ksi)	34		
Yield Strength (.5% extension under load) (ksi)	25		
Elongation (2 inch gauge length) (%)	5		
Compressive Yield Strength (ksi)	25		
Hardness (Brinell) (HB @ 500kg)	75		
Shear Strength (ksi)	26		
Endurance Limit (K ksi)	9		
Modulus of Elasticity (K ksi)	9.7		
Density (lb/cu.in. @ 68F)	.100		
Electrical Conductivity (% IACS @ 68F)	30		
Thermal Conductivity (cal/sec/sq cm/cm/C @ 25C)	0.29		
Coefficient of Thermal Expansion (per F @ 68-212F)	13.4		
Coefficient of Thermal Expansion (per F @ 68-572F)	14.6		
Melting Range (Liquidus-Solidus)(F)	1100-1180		
Resistance to Hot Cracking	F		
Pressure Tightness	F		
Fluidity	G		
Solidification Shrinkage Tendency	F		
Strength at Elevated Temperatures	F		
Corrosion Resistance	E		
Machinability	E		
Polishing	E		
Gas Welding	F		
Arc Welding	G		
Brazing	Yes		
Normally Heat Treated	No		
Anodizing Appearance	Light Yellow		
Electroplating			
Applications:	Large intricate castings, marine castings, farm machinery, machine tool parts. Because of finishing characteristics they are exceptional choices for decorative castings.		
Aging:	Self age in 21-30 days		

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.

We routinely pour and inventory this alloy.

