

Aluminum-Magnesium Alloy 535.0 Sand Castings

Chemical Composition & Physical Properties

Chemical Composition Limits per ASTM B 26-98

Si	Fe	Cu	Mn	Mg	Ti	Other	Al
0.15	0.15	0.05	0.10-0.25	6.2-7.5	0.01-0.25	0.15	Remainder

Typical Mechanical Properties

Temper	Ultimate Strength	Yield Strength	Elongation	Shear Strength	Compressive Yield Strength	Brinell Hardness	Endurance Limit
F	(ksi) 40	(ksi) 20	(% in 2 in.) 13	(ksi) 27.45	(ksi) 23.5	70	(ksi) 10
	(35 min.)	(18 min.)	(9 min.)			(70 min.)	ASTMB26-98

*Thermal Conductivity (@77F, SI units): 0.24 cal/cm*s*K

*Heat Treatment - Achieves its physical and mechanical properties as-cast (F). This eliminates the time and cost of heat treating.

*Machinability - Excellent machinability as-cast, excellent surface finish and high dimensional stability.

*Corrosion Resistance - Highest of any cast alloy. It can be anodized for additional corrosion protection to a 0.7 mil thickness (215R1).

*Finishing - Produces an excellent surface finish by burnishing or polishing. Anodizes well to a clear satin finish due to the minimal amount of silicon in the alloy.

*Weldability - It can be welded by any of the inert gas processes, T.I.G. or M.I.G., using filler rod of 5356 or 5183.



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