

Alloy Data: Aluminum Die Casting Alloy Composition

Aluminum Die Casting Alloys ^A				
Commercial:	360	380	383	13
ANSI/AA:	360.0	380.0	383.0	413.0
Nominal Composition:	Mg 0.5 Si 9.5	Cu 3.5 Si 8.5	Cu 2.5 Si 10.5	Si 12.0
Detailed Composition				
Silicon				
Si	9.0-10.0	7.5-9.5	9.5-11.5	11.0-13.0
Iron				
Fe	2.0	2.0	1.3	2.0
Copper				
Cu	0.60	3.0-4.0	2.0-3.0	1.0
Manganese				
Mn	0.35	0.50	0.50	0.35
Magnesium				
Mg	0.4-0.6	0.10	0.10	0.10
Nickel				
Ni	0.50	0.50	0.30	0.50
Zinc				
Zn	0.50	3.0	3.0	0.50
Tin				
Sn	0.15	0.35	0.15	0.15
Titanium				
Ti	—	—	—	—
Others				
Each	—	—	—	—
Total				
Others	0.25	0.50	0.50	0.25
Aluminum				
Al	Balance	Balance	Balance	Balance

^A Analysis shall ordinarily be made only for the elements mentioned in this table. If, however, the presence of other elements is suspected, or indicated in the course of routine analysis, further analysis shall be made to determine that the total of these other elements are not present in excess of specified limits.

Source: "Alloy Data." NADCA Product Specification Standards for Die Casting. Wheeling, IL. NADCA Publication #402. 7th Edition. 2009. Section 3. Table A-3-1 Chemical Composition: Al Alloys.