PHYSICAL PROPERTIES
OF
ALUMINUM FOIL

SPECIFIED THICKNESS Inch	ALLOY AND TEMPER							
	1145 and 1235		1100		3003		5052	
	0	H19	0	H19	0	H19	0	H19
	ULTIMATE TENSILE STRENGTH, ksi							
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
0.0007-0.0015	14.0	20.0	15.5	24.0	19.0	27.5	31.0	43.0
0.0016-0.0025	14.0	20.0	15.5	24.0	19.0	27.5	31.0	42.0
0.0026-0.0040	14.0	20.0	15.5	24.0	19.0	27.5	31.0	41.0
0.0041-0.0059	14.0	20.0	15.5	24.0	19.0	27.5	31.0	36.0

Density.....0.0975lb/in.
Specific Gravity.....2.70 (approx.)
Melting Range.....1190-1215 ^{o}F
Electrical Conductivity.....59% IACS, vol.,
200% IACS (approx.) weight
Thermal Conductivity..... 53 CGS units at 25 ^{o} C 10
Thermal Coefficient of Linear Expansion.....
13.1 x 10^{-6} per ^{o}F from 68 ^{o} to 212 ^{o}F
Reflectivity for white light, Tungsten Filament Lamp..... 85% to 88%
Reflectivity for radiant heat;From source at 100 ^{o} F.....95% (approx.)
Emissivity, at 100 ^{o}F.....5% (approx.)
Atomic Number.....13
Atomic Weight.....26.98
Valence.....+3
Strongly Electropositive.....-1.66/v
Specific Heat at 20 ^{o}C..... 0.21-0.23 cal/gm/C
Boiling Point.....4470 ^{o}F
Temperature Coefficient of Resistance for Aluminum.....
(Representative values per ^{o}C)

Temperature ^{o}C	Coefficient
20	0.0040-0.0036
100	0.0031-0.0028

Low Temperature properties - Aluminum increases in Strength and ductility as temperature is lowered, even down to -320 ^{o}F.

All published densities are now reported to nearest 0.0005 lb/in for alloys having 99.35% min. aluminum. (The 0.0975 value is valid for active alloys containing 99.40% AL or more.)
CGS unit = cal (cm) / (cm^2)(^{o}c)(sec.)
English unit = BTU (ft) / (ft^2)(^{o}F)(hr)
Multiply CGS units by 241.9 to convert to English units