ALUMINUM ALLOY GUIDE

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	ALUMINUM							
ALLOY NUMBER	1050	1100	1145	1235	1350	3003	5052	6061
ASTM		B479	B479	B479				
QQA		1876	1876	1876				
	CHEMICAL PROPERTIES							
Aluminum	99.50	99.00	99.45	99.35	99.50	Remainder	Remainder	Remainder
Iron	.40				0.40	0.7	0.40	0.7
Copper	0.05	0.05-0.20	0.05	0.05	0.05	0.05-0.20	0.40	0.7
Manganese	0.05	0.05	0.05	0.05	0.01	1.0-1.5	0.10	0.15
Magnesium	0.05		0.05	0.05			2.2-2.8	0.8-1.2
Chromium					0.01		0.15-0.35	0.04-0.35
Nickel								
Zinc	0.05	0.10	0.05	0.10	0.05	0.10	0.10	0.25
Titanium	0.03		0.03	0.06				0.15
Silicon	.25	.95 Si+Fe	.55 Si+Fe	.65 Si+Fe	0.10	0.6	0.25	0.40-0.8
Other Total		0.15			0.10	0.15	0.15	0.15

MECHANICAL PROPERTIES									
ANNEALED	TENSILE	11	13	13	13	12	16	28	13
	YIELD	4	5	5	5	4	6	13	8
	ELONG.	39	35	35	35	23% @ 10IN	30	25	25
								H32	
H12	TENSILE	14	16	16	16	14	19	33	
	YIELD	12	15	15	15	12	18	28	
	ELONG.	12	12	12	12		10	12	
								H34	T4
H14	TENSILE	16	18	18	18	16	22	38	35
	YIELD	15	17	17	17	14	21	31	21
	ELONG.	10	9	9	9		8	10	22
								H36	T6
H16	TENSILE	19	21	21	21	18	26	40	45
	YIELD	18	20	20	20	16	25	35	40
	ELONG.	8	6	6	6		5	8	12
								H38	
H18	TENSILE	23	24	24	24		29	42	
	YIELD	21	22	22	22		27	37	
	ELONG.	7	5	5	5		4	7	
H19	TENSILE	21.8	24	20	20	27	27.5	36	
	YIELD					24			
	ELONG.	1	1			2	1		

The above properties are not guaranteeed, since in most cases they are averages for various sizes, product forms and methods of manufacture and may not be exactly representative of any particular product or size. This data is intended only for the basis for comparing alloys and tempers and should not be specified as engineering requirements or used for designing purposes.