



Investment Casting Properties

Typical Minimum Mechanical Properties

North American Specifications

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Alloy	Specification	UTS (ksi)	YS (ksi)	% EL.	Hardness (HRE)
A356-T6	AMS 4218	33	27	3.00	78
A357-T6	AMS 4219	41	32	3.00	78
F357-T6	AMS 4289	41	32	3.00	78
D 357-T6	AMS4241	45	36	2.00	78 *
E 357-T6	AMS4288	46	36	2.00	78 *
40E (712.0)	ASTM B618	34	25	4.00	75
A201	AMS 4229	60	50	3.00	84 HRK
206	AMS 4235	54	45	3.00	100 HB/10/500
C355	AMS 4215	37	30	1.00	82
Vanasil	ASTM B179	30	-	0.05	85

*Properties obtained from test bar excised from casting

Typical Chemical Composition														
ALLOY	SPECIFICATION	AL	CU	SI	ZN	MG	CR	FE	MN	Ti	AG	BE	NI	P
A356-T6	AMS 4218	Bal	0.20	6.5-7.5	0.10	0.25-0.45	-	0.20	0.10	0.20	-	-	-	-
A 357	AMS 4219	Bal	0.20	6.5-7.5	0.10	0.40-.70	-	0.20	0.10	0.04-0.20	-	0.04-0.07	-	-
F 357	AMS 4289	Bal	0.20	6.5-7.5	0.10	0.40-.70	-	0.10	0.10	0.04-0.20	-	.002	-	-
E 357	AMS 4288	Bal	-	6.5-7.5	0.10	0.55-0.60	-	0.10	0.10	0.10-0.20	-	.002	-	-
A201	AMS 4229	Bal	4.0-5.0	.05	-	0.15-0.35	-	0.10	0.20-0.34	0.15-0.35	0.40-1.0	-	-	-
C355	AMS 4215	Bal	1.0-1.5	4.5-5.5	0.10	0.40-0.60	-	0.20	0.10max	0.20	-	-	-	-
A206	AMS 4235	Bal	4.2-5.0	.05max	0.05max	0.20-0.35	-	0.10ma	0.20-0.50	0.15-0.30	-	-	0.5max	-
B206		Bal	4.2-5.0	.05max	0.05max	0.15-0.35	-	0.10max	0.20-0.50	0.10	-	-	0.5max	-