

ALLOY SPECIFICATION CHART

(Partial Listing of Most Common Alloys)

Alloy Types	Common Casting Specifications	RATING*							
		Castability	Machinability	Corrosion Resistance	Weldability	Harden by Heat Treat	Magnetic		
CARBON & LOW ALLOY STEELS	1020	MIL-S-81591	2	2	4	2	Yes	Yes	
	1025	ASTM A-216 WCB	2	2	4	2	Yes	Yes	
	1030	MIL-S-81591	2	2	4	2	Yes	Yes	
	1045	MIL-S-81591	1	3	4	2	Yes	Yes	
	1050	MIL-S-81591	1	3	4	2	Yes	Yes	
	4130	AMS 5336	2	2	4	2	Yes	Yes	
	4140	AMS 5338	2	2	4	2	Yes	Yes	
	4340	AMS 5330	2	2	4	2	Yes	Yes	
	6150	MIL-S-22141	1	2	4	2	Yes	Yes	
	8620	MIL-S-22141	2	2	4	2	Yes	Yes	
COBALT ALLOYS	Co3	IC Co3	1	3	1	3	No	No	
	Co6	AMS 5387	1	4	1	3	No	No	
	Co21	AMS 5385	1	3	1	2	No	No	
	Co25	H.S.25 (L605)	1	3	1	2	No	No	
	Co31	AMS 5382	1	3	1	2	No	No	
ALUMINUM ALLOYS	355	ASTM B-618	1	1	2	2	Yes	No	
	356	AMS 4260; AMS 4218	1	1	2	2	Yes	No	
	357	ASTM B-686	1	1	2	2	Yes	No	
	712	QQ-A-601 (17)	3	1	2	2	No	No	
NICKEL ALLOYS	Monel M-35-1	ASTM A494 M35-1	1	3	1	2	No	No	
	INCONEL	AMS 5402-A	1	2	1	2	No	No	
COPPER ALLOYS	C90300: Tin Bronze	ASTM B-584	2	3	1	1	No	No	
	C87500: Si Brass	ASTM B-584	1	2	2	2	No	No	
	C86200: Yellow Brass	ASTM B-584	2	2	2	2	No	No	
AUSTENITIC STAINLESS STEEL	303	ASTM A743	2	2	1	3	No	No	
	304	AMS 5370	1	3	1	1	No	No	
	310	AMS 5366	1	3	1	1	No	No	
	316	AMS 5360	1	3	1	2	No	No	
	330	ASTM A297 GR HT	1	3	1	1	No	No	
347	AMS 5362	1	3	1	1	No	No		
FERRITIC AND MARTENSITIC STAINLESS STEELS	410	AMS 5350	2	2	3	3	Yes	Yes	
	416	AMS 5349	3	1	3	4	Yes	Yes	
	420	MIL-S-81591	2	2	3	3	Yes	Yes	
	431	AMS 5372	3	3	2	3	Yes	Yes	
	436	AMS 5354	3	3	2	3	Yes	Yes	
P.H. MARTENSITIC SS	15-5	AMS 5346	2	2	1	1	Yes	Yes	
	17-4	AMS 5355	2	2	1	1	Yes	Yes	
TOOL STEELS	Oil Harden	D-2	IC CD-2	1	3	3	4	Yes	Yes
		0-1	IC C0-1	2	2	4	3	Yes	Yes
	Air Harden	A-2	ASTM A597; Gr CA-2	1	3	4	4	Yes	Yes
Water Harden	S-2	IC CS-2	2	2	4	2	Yes	Yes	

* RATINGS: 1 - Excellent 2 - Good 3 - Fair 4 - Poor

This chart contains only a few of the most commonly specified casting alloys that Kovatch Castings pours. Our metallurgical engineers welcome the opportunity to assist you in selecting the best metals to achieve your desired results with metal parts.



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