

ASTM NORM	GRADE	UNS N°	Designation	Equivalent barre	Densité (g/cm3)	Fonderie COYARD	Composition, %															Caractéristiques mécaniques				
							Al Aluminum	Bi Bismuth	C Carbone	Cr Chrome	Cr Chromium	Cu Cuivre	Fe Fer	Mn Manganese	Mo Molybdène	N Azote	Ni Nickel	Nb Niobium	P Phosphore	Pb Plomb	Si Silicium	S Soufre	Sn Etain	W Tungstène	V Vanadium	Tensile strength, ksi (MPa)
<b>CARBON STEEL</b>																										
A216	WCA	J02502				On request			0.25max	0.50max	0.30max	Bal.	0.70max	0.20max	0.50max	0.04max	0.60max	0.045max			0.03max	60 to 85 (415 to 585)	30 (205)	24	35	
A216	WCB	J03002		A105		Standard			0.30max	0.50max	0.30max	Bal.	1.00max	0.20max	0.50max	0.04max	0.60max	0.045max			0.03max	70 to 95 (485 to 655)	36 (250)	22	35	
A216	WCC	J02503				Standard			0.25max	0.50max	0.30max	Bal.	1.20max	0.20max	0.50max	0.04max	0.60max	0.045max			0.03max	70 to 95 (485 to 655)	40 (275)	22	35	
A217	WC1	J12524				Standard			0.25	/	/	Bal.	0.5-0.8	0.45-0.65	/	/	0.04	0.6	0.045			65 to 90 (450 to 620)	35 (240)	24	35	
A217	WC4					On request			0.05-0.20	0.50-0.80	/	Bal.	0.5-0.8	0.45-0.65	0.70-1.10	/	0.04	0.6	0.045			70 to 95 (485 to 655)	40 (275)	20	35	
A217	WC5					Standard			0.05-0.20	0.50-0.90	/	Bal.	0.4-0.7	0.90-1.20	0.60-1.00	/	0.04	0.6	0.045			70 to 95 (485 to 655)	40 (275)	20	35	
A217	WC6	J12072		A182 F11		Standard			0.05-0.20	1.00-1.50	/	Bal.	0.5-0.8	0.45-0.65	/	/	0.04	0.6	0.045			70 to 95 (485 to 655)	40 (275)	20	35	
A217	WC9			A182 F22		Standard			0.05-0.18	2.00-2.75	/	Bal.	0.4-0.7	0.90-1.20	/	/	0.04	0.6	0.045			70 to 95 (485 to 655)	40 (275)	20	35	
A217	WC11					On request			0.15-0.21	1.00-1.50	/	Bal.	0.5-0.8	0.45-0.65	/	/	0.020	0.30-0.60	0.015			80 to 105 (550 to 725)	50 (345)	18	45	
A217	C6	J42045				Standard			0.20	0.04-0.50	/	Bal.	0.40-0.70	0.45-0.65	/	/	0.04	0.75	0.045			90 to 115 (620 to 795)	60 (415)	18	35	
A217	C12	J82090				On request			0.20	0.04-0.50	/	Bal.	0.35-0.65	0.90-1.20	/	/	0.04	1.00	0.045			90 to 115 (620 to 795)	60 (415)	18	35	
A217	C12A			A182 F91		On request			0.12	0.0-9.5	/	Bal.	0.30-0.60	0.85-1.05	0.40	0.060-0.10	0.020	0.20-0.50	0.018			85 to 110 (585 to 760)	60 (415)	20	45	
A217	CA15	J91150				Standard			0.15	11.5-14.0	/	Bal.	1.00	0.50	1.00	/	0.20	1.50	0.040			90 to 115 (620 to 795)	65 (450)	18	30	
<b>AUSTENITIC &amp; AUSTENITIC-FERRITIC (DUPLEX)</b>																										
A351	CF3, CF3A	J92500		304L		Standard			0.03	17.0-21.0	/	Bal.	1.50	0.50	/	8.0-11.0	/	0.040	2.00	0.040	/	/	70 (485), 77 (530)	80 (205), 35 (240)	35.0	
A351	CF8, CF8A	J92800		304		Standard			0.08	18.0-21.0	/	Bal.	1.50	0.50	/	8.0-11.0	/	0.040	2.00	0.040	/	/	70 (485), 77 (530)	80 (205), 35 (240)	35.0	
A351	CF3M, CF3MA	J92800		316L		Standard			0.03	17.0-21.0	/	Bal.	1.50	2.0-3.0	/	9.0-13.0	/	0.040	1.50	0.040	/	/	70 (485), 80 (550)	90 (205), 37 (255)	30.0	
A351	CF8M	J92900		316		Standard			0.08	18.0-21.0	/	Bal.	1.50	2.0-3.0	/	9.0-12.0	/	0.040	1.50	0.040	/	/	70 (485)	30 (205)	30.0	
A351	CF8M	J92854		316LN		On request			0.03	17.0-21.0	/	Bal.	1.50	2.0-3.0	0.10-0.20	9.0-13.0	/	0.040	1.50	0.040	/	/	75 (515)	37 (255)	35.0	
A351	CF8C	J92710		347		On request			0.08	18.0-21.0	/	Bal.	1.50	0.50	/	9.0-12.0	/	0.040	2.00	0.040	/	/	70 (485)	30 (205)	30.0	
A351	CF10			A182 F321		On request			0.04-0.10	18.0-21.0	/	Bal.	1.50	0.50	/	8.0-11.0	/	0.040	2.00	0.040	/	/	70 (485)	30 (205)	35.0	
A351	CF10M	J92901				Standard			0.04-0.10	18.0-21.0	/	Bal.	1.50	2.0-3.0	/	9.0-12.0	/	0.040	1.50	0.040	/	/	70 (485)	30 (205)	30.0	
A351	CH8					On request			0.08	22.0-26.0	/	Bal.	1.50	0.50	/	12.0-15.0	/	0.040	1.50	0.040	/	/	65 (450)	28 (195)	30.0	
A351	CH10					On request			0.04-0.10	22.0-26.0	/	Bal.	1.50	0.50	/	12.0-15.0	/	0.040	2.00	0.040	/	/	70 (485)	30 (205)	30.0	
A351	CH20					On request			0.04-0.20	22.0-26.0	/	Bal.	1.50	0.50	/	12.0-15.0	/	0.040	2.00	0.040	/	/	70 (485)	30 (205)	30.0	
A351	CK20			310		On request			0.04-0.20	23.0-27.0	/	Bal.	1.50	0.50	/	19.0-22.0	/	0.040	1.75	0.040	/	/	65 (450)	28 (195)	30.0	
A351	HK30					On request			0.25-0.35	23.0-27.0	/	Bal.	1.50	0.50	/	19.0-22.0	/	0.040	1.75	0.040	/	/	65 (450)	35 (240)	18	
A351	HK40					On request			0.35-0.45	23.0-27.0	/	Bal.	1.50	0.50	/	19.0-22.0	/	0.040	1.75	0.040	/	/	62 (425)	35 (240)	10.0	
A351	HT30					On request			0.25-0.35	13.0-17.0	/	Bal.	2.00	0.50	/	33.0-37.0	/	0.040	2.50	0.040	/	/	65 (450)	28 (195)	15.0	
A351	CF10MC					Standard			0.10	15.0-18.0	/	Bal.	1.50	1.75-2.25	/	13.0-16.0	/	0.040	1.50	0.040	/	/	70 (485)	30 (205)	20.0	
A351	CN7M	N08007		Alloy 20 - UNS N08020 - Carpenter 20CB-3		8.08	Standard		0.07	19.0-22.0	3.0-4.0	Bal.	1.50	2.0-3.0	27.5-30.5	/	0.040	1.50	0.040	/	/	62 (425)	25 (170)	35.0		
A351	CN3MN	N08367		AL6XN		On request			0.03max	20.0-26.0	0.75max	Bal.	2.00max	6.0-7.0	0.18-0.26	23.5-25.5	/	0.040max	1.00max	0.010max	/	/	80 (550)	38 (260)	35.0	
A351	CD3MN					Standard			0.04	24.5-25.5	2.75-3.25	Bal.	1.00	1.75-2.25	1.75-2.25	/	0.040	1.00	0.030	/	/	100 (690)	70 (485)	15.0		
A351	CE8MN					On request			0.08	22.5-25.5	/	Bal.	1.00	3.0-4.5	0.10-0.30	8.0-11.0	/	0.040	1.50	0.040	/	/	95 (655)	65 (450)	25.0	
A351	CG6MN					On request			0.06	20.50-23.50	/	Bal.	4.00-6.00	1.50-3.00	0.20-0.40	11.50-13.50	0.10-0.30	0.040	1.00	0.030	/	0.10-0.30	85 (585)	42.5 (295)	30.0	
A351	CG8M	J93000		317		Standard			0.08	18.0-21.0	/	Bal.	1.50	3.0-4.0	/	9.0-13.0	/	0.04	1.50	0.04	/	/	75 (515)	35 (240)	25.0	
A351	CF10SMN					On request			0.10	16.0-18.0	/	Bal.	1.50	0.50	0.08-0.18	9.0-12.0	/	0.060	3.50-4.50	0.030	/	/	85 (585)	42.5 (295)	30.0	
A351	CT15C					On request			0.05-0.15	19.0-21.0	/	Bal.	0.15-1.50	/	31.0-34.0	0.50-1.50	0.04	0.50-1.50	0.03	/	/	63 (435)	25 (170)	20.0		
A351	CK3MnCuN	S31254		A182 F44 - 254-310		On request			0.025	19.5-20.5	0.50-1.00	Bal.	1.20	6.0-7.0	0.18-0.24	17.5-19.5	/	0.045	1.00	0.010	/	/	80 (550)	38 (260)	35	
A351	CE20N					On request			0.20	23.0-26.0	/	Bal.	1.50	0.50	0.06-0.20	8.0-11.0	/	0.040	1.50	0.040	/	/	80 (550)	40 (275)	30	
A351	CD3-3M	J92999		317L		Standard			0.03	18.0-21.0	/	Bal.	1.50	3.0-4.0	/	9.0-13.0	/	0.04	1.50	0.04	/	/	75 (515)	35 (240)	25	
A351	CD3MWCuN					On request			0.03	24.0-26.0	0.5-1.0	Bal.	1.00	3.0-4.0	0.20-0.30	6.5-8.5	/	0.030	1.00	0.025	/	6.5-1.0	100 (700)	65 (450)	25.0	
A351	CN2McuN	N08904		904L / Uranus B6		7.95	Standard		0.02	19.0-23.0	1.0-2.0	Bal.	2.0max	4.0-5.0	23.0-28.0	/	0.045max	1.00max	0.035max	/	/	65.00	28.00	35.00		
<b>CARBON STEEL</b>																										
A352	LCA		Carbon Steel			On request			0.25	050	0.30	Bal.	0.70	0.20	0.50	0.50	0.04	0.60	0.045		0.03	60.0-85.0 (415-585)	30.0 (205)	24		
A352	LCB	J03003	Carbon Steel	ASTM A352 LF2		On request			0.30	0.50	0.30	Bal.	1.00	0.20	0.50	0.50	0.04	0.60	0.045		0.03	65.0-90.0 (415-585)	35.0 (240)	24	35	
A352	LCC	J02505	Carbon-Manganese Steel			Standard			0.25	0.50	0.30	Bal.	1.20	0.20	0.50	0.04	0.60	0.045		0.03	70.0-95.0 (485-655)	40.0 (275)	22	35		
A352	LC1		Carbon-Molybdenum Steel			On request			0.25			Bal.	0.90-0.380	0.45-0.65		0.50	0.04	0.60	0.045			65.0-90.0 (450-620)	35.0 (240)	24	35	
A352	LC2		Nickel Steel			On request			0.25			Bal.	0.50-0.80		2.00-3.00		0.04	0.60	0.045			70.0-95.0 (485-655)	40.0 (275)	24	35	
A352	LC2-1		Nickel-Chromium-Molybdenum Steel			On request			0.22	1.35-1.85		Bal.	0.55-0.75	0.30-0.60	2.50-3.50		0.04	0.50	0.045			105.0-130.0 (725-895)	80.0 (550)	18		