

Quality F1
According to Standard ASTM A 182/A 182M - 10a
Number -



Comparable Standards EN W.N. BS

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Chemical Analysis	C % max	Mn %	Si %	P% max	Cr %	Ni %	Mo %	S% max	Other Elements
	0.28	0.60 - 0.90	0.15 - 0.35	0.045	—	—	0.44 - 0.65	0.045	—

Hot Work and Heat Treatment

Grade	Heat Treat Type	Austenitizing/Solutioning Temperature,	Cooling Media	Quenching Cool Below °F [°C]	Tempering Temperature, Minimum or Range,
F 1	anneal	1650 [900]	furnace cool	-	-
	normalize and temper	1650 [900]	air cool	-	1150 [620]

Mechanical Properties at Room Temperature

Grade Symbol	Tensile Strength, min, ksi [Mpa]	Yield Strength, min, ksi [Mpa]	Elongation in 2 in, [50 mm] of 4D, min, %	Reduction of Area, min, %	Brinell Hardness Number, HBW
F 1	70 [485]	40 [275]	20	30	143 - 192