

Quality	F6a
According to Standard	ASTM A 182/A 182M - 10a
Number	-



### Comparable Standards

EN	W.N.	BS
-	-	-

### Chemical Analysis

C %	Mn %	Si %	P%	Cr %	Ni %	Mo %	S%	Other Elements
0.15	1.00	1.00	0.040	11.5 to 13.5	-	-	0.030	-

### Hot Work and Heat Treatment

Grade	Heat Treat Type	Austenitizing/Solutioning Temperature, Minimum or Range, °F [°C] <sup>a</sup>				Cooling Media	Quenching Cool Below °F [°C]	Tempering Temperature, Minimum or Range, °F [°C]
		Low Alloy Steels						
F 6a Class 1	anneal	not specified		furnace cool		-	-	
	normalize and temper	not specified		air cool		400 [205]	1325 [725]	
	temper	not required		-		-	1325 [725]	
F 6a Class 2	anneal	not specified		furnace cool		-	-	
	normalize and temper	not specified		air cool		400 [205]	1250 [675]	
	temper	not required		-		-	1250 [675]	
F 6a Class 3	anneal	not specified		furnace cool		-	-	
	normalize and temper	not specified		air cool		400 [205]	1100 [595]	
F 6a Class 4	anneal	not specified		furnace cool		-	-	
	normalize and temper	not specified		air cool		400 [205]	1000 [540]	

### 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
F6a Class 1	70 [485]	40 [275]	18	35	143-207
F6a Class 2	85 [585]	55 [380]	18	35	167-229
F6a Class 3	110 [760]	85 [585]	15	35	235-302
F6a Class 4	130 [895]	110 [760]	12	35	263-321