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

ALOK INGOTS
steel re engineered
AN ISO 9001:2008 CERTIFIED COMPANY

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][A]**	**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**