

(Properties minima unless stated)

Deoxidation	Mechanical Properties									
	Tensile Strength	Yield Stress	Elongation ²¹⁾ (15) (16) (17)	Temp	Impact Test					
					Average Absorbed Energy ¹⁸⁾ J (ft-lbs)					
	N/mm ² (ksi)	N/mm ² (ksi)	%	°C (°F)	Thickness t mm (in.)					
					t ≤ 50 (2.0)		50 (2.0) < t ≤ 70 (2.8)		70 (2.8) < t ≤ 100 (4.0)	
Long ¹⁹⁾					Transv ¹⁹⁾	Long ¹⁹⁾	Transv ¹⁹⁾	Long ¹⁹⁾	Transv ¹⁹⁾	
¹²⁾ Killed or semi-killed (t≤50mm (2.0in.)) killed (t>50mm (2.0in.))	400/520 (58/75)	235 (34)	22	20 ²⁰⁾ (68)	-	-	34 ²⁰⁾ (25)	24 ²⁰⁾ (17)	41 ²⁰⁾ (30)	27 ²⁰⁾ (20)
				0 (32)	27 (20)	20 (14)	34 (25)	24 (17)	41 (30)	27 (20)
				-20 (-4)	27 (20)	20 (14)	34 (25)	24 (17)	41 (30)	27 (20)
				-40 (-40)	27 (20)	20 (14)	34 (25)	24 (17)	41 (30)	27 (20)
¹³⁾ Killed and fine grain (t>25mm (1.0in.)) ¹³⁾ Killed and fine grain	440/590 (64/85)	315 (46)	22	0 (32)	34 (25)	24 (17)	38 (28)	26 (19)	46 (34)	31 (23)
				-20 (-4)	34 (25)	24 (17)	38 (28)	26 (19)	46 (34)	31 (23)
				-40 (-40)	34 (25)	24 (17)	38 (28)	26 (19)	46 (34)	31 (23)
				0 (32)	34 (25)	24 (17)	41 (30)	27 (20)	50 (37)	34 (25)
				-20 (-4)	34 (25)	24 (17)	41 (30)	27 (20)	50 (37)	34 (25)
				-40 (-40)	34 (25)	24 (17)	41 (30)	27 (20)	50 (37)	34 (25)
	510/650 (74/94)	390 (57)	20	0 (32)	41 (30)	27 (20)	-	-	-	-
				-20 (-4)	41 (30)	27 (20)	-	-	-	-
				-40 (-40)	41 (30)	27 (20)	-	-	-	-
				-60 (-76)	34 (25)	24 (17)	-	-	-	-
				-60 (-76)	34 (25)	24 (17)	-	-	-	-
				-60 (-76)	41 (30)	27 (20)	-	-	-	-

14) The steel is to contain at least one of the grain elements in sufficient amount to meet the fine grain practice requirement (See 2/1.5.2d)

15) Based on alternative A flat test specimen or alternative C round specimen in Figure 2/1.1

16) Minimum elongation for alternative B flat specimen in Figure 2/1.1 is to be accordance with Table 2/1.1-3

17) Minimum elongation for ASTM E8M/E8 or A370 specimen is Table 2/1.2-3 for 200mm (8 in.) specimen and 22% for 50mm (2 in.) specimen

18) The energy shown is minimum for full size specimen. See 2/1.3.5c for subsize specimen requirement

19) Either direction is acceptable

20) Impact tests for Grade A are not required when the material is produced using fine grain practise and normalised

21) Elongation requirements for Alternative B specimen are as follows :

Thickness mm (in.)	5 (0.2) ≤ t	5 (0.2) < t	10 (0.4) < t	15 (0.6) < t	20 (0.8) < t	25 (1.0) < t	30 (1.2) < t	40 (1.6) < t
		≤ 10 (0.4)	≤ 15 (0.6)	≤ 20 (0.8)	≤ 25 (1.0)	≤ 30 (1.2)	≤ 40 (1.6)	≤ 50 (2.0)
Grade	Elongation %							
A / B / D / E	14	16	17	18	19	20	21	22
AH/DH/EH/FH 32	14	16	17	18	19	20	21	22
AH/DH/EH/FH 36	13	15	16	17	18	19	20	21
AH/DH/EH/FH 40	12	14	15	16	17	18	19	20