

TYPE	TANDAR	GRADE	thickness : t mm.	CHEMICAL COMPOSITION (max)										Tension Test				OTHER TEST																			
				C	Si	Mn	P	S	Cu ¹⁾ min	N	Nb	V	OTHER ELEMENTS	Yield Point _{min}		Tensile Strength			Elongation _{min}																		
														thick : t mm.	Kgf / mm ² [MPa, N / mm ²] (ksi)	thick : t mm.	Kgf / mm ² [MPa, N / mm ²] (ksi)		thick : t mm.	Transverse																	
Pressure Vessel Plates, Carbon Steel for Moderate - and Lower Tempera ture Survive	ASTM A516 ⁽⁴⁾ (2006)	55	t ≤ 12.5	0.18	0.13 - 0.45	0.55- 0.98	0.035	0.035	-	-	-	-	Product Analysis (For heat analysis of Mn and Si see table 1 in ASTM A516/A516M)	t ≤ 100 (The yield strength are determined by either the 0.2% offset method or the 0.5% extension - under-load method)	t ≤ 100	21 [205] (30)	39 - 52 [380 - 515] (55-75)	t ≤ 100 (See specification A20/ A20M for elongation adjustment.)	23	Supplemen tary requiremen ts shall not apply unless specified in the purchase order.																	
			12.5 < t ≤ 50	0.20		0.55 -															0.79 -	1.30	22.5 [220] (32)	42 - 56 [415 - 550] (60-80)	21												
			50 < t ≤ 100	0.22		1.30																															
		60	t ≤ 12.5	0.21		0.79 -															1.30	24.5 [240] (35)	46 - 60 [450 - 585] (65-85)	19													
			12.5 < t ≤ 50	0.23																					26.5 [260] (38)	49 - 63 [485 - 620] (70-90)	17										
			50 < t ≤ 100	0.25																																	
		65	t ≤ 12.5	0.24																					0.79 -	1.30	24.5 [240] (35)	46 - 60 [450 - 585] (65-85)	19								
			12.5 < t ≤ 50	0.26																										26.5 [260] (38)	49 - 63 [485 - 620] (70-90)	17					
			50 < t ≤ 100	0.28																																	
		70	t ≤ 12.5	0.27																										0.79 -	1.30	24.5 [240] (35)	46 - 60 [450 - 585] (65-85)	19			
			12.5 < t ≤ 50	0.28																															26.5 [260] (38)	49 - 63 [485 - 620] (70-90)	17
			50 < t ≤ 100	0.30																																	