SA 516 GR.60

PRESSURE VESSEL STEEL

STANDARD	ASME
IDENTIFICATION NUMBER	-
CLASSIFICATION	-
TYPE	Alloyed/Unalloyed
ROLLING STATE	Normalised
BRIEF DESCRIPTION	Steel for heaters and pressure vessels. Resistant to low and moderate temperatures. Excellent notch sensitivity and weldability.
APPLICATIONS	Pressure vessels, boilers and heat exchangers, above all in oil, gas, and petrochemical industries.

STANDARD COIL STOCK RANGE

SA 516 GR.60	1500	2000
3	•	
4	•	
5	•	•
6	•	•
7		•
8	•	•
10	•	•
12	•	•

CHEMICAL COMPOSITION

Regulatory standard

C (%)	Si (%)	Mn (%)	P (%)	S (%)	Al (%)	Nb (%)	Ti (%)	V (%)	Mo (%)	Cu (%)
≤ 0.23*	≤ 0.40	≤ 1.20*	≤ 0.025	≤ 0.025						

Cr (%)	Ni (%)	N (%)	B (%)	Nb+Ti+V (%)	Cr+Mo+Ni (%)	Ni+Cr+Cu+Mo (%)	C.E.V. (%)

C.E.V. (%) = C+(Mn/6)+[(Cr+Mo+V)/5]+[(Ni+Cu)/15]

MECHANICAL PROPERTIES

According to ASME 516 Gr. 60

Mechanical characteristics	Direction	KSI	Values
R_e (MPa)	T	60-80	415-550
R_m (MPa)	T	32	≥ 220
A_{200} (%)	T		≥ 21
A_{50} (%)	T		≥ 25
Bend Test 180°			
KV 20°C (J)			
KV 0°C (J)			
KV -20°C (J)			
KV -40°C (J)			
KV -50°C (J)			

** = Standard option*
t = thickness in mm of the test piece for the bend test
L = Tensile testing carried out on longitudinal test pieces
T = Bend tests carried out on cross-cut test pieces

TOLERANCES	Tolerances on the dimensions and on the shape	UNI EN 10051
	Surface condition	UNI EN10163 Cl. A
CERTIFICATIONS	EN 10204-3.1	

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