P355GH

PRESSURE VESSEL STEEL

STANDARD	EN 10028-2
IDENTIFICATION NUMBER	1.0473
CLASSIFICATION	-
TYPE	Alloyed/Unalloyed
ROLLING STATE	Normalised
BRIEF DESCRIPTION	Fine-grain structural steel for pressure vessels. Good weldability and good cold and hot-rolling properties under normalised conditions.
APPLICATIONS	Fine-grain, high-resistance structural steel for pressure vessels.

STANDARD COIL STOCK RANGE

P355GH	1500	2000
3	•	
4	•	
5	•	•
6	•	•
8	•	•
10	•	•
12	•	•
15	•	

CHEMICAL COMPOSITION

Regulatory standard | [Nb+V+Ti ≤ 0.12]

C (%)	Si (%)	Mn (%)	P (%)	S (%)	Al (%)	Nb (%)	Ti (%)	V (%)	Mo (%)	Cu (%)
0.10-0.22	≤ 0.60	1.10-1.70	≤ 0.025	≤ 0.010	≥ 0.020	≤ 0.040	≤ 0.03	≤ 0.02	≤ 0.08	≤ 0.30

Cr (%)	Ni (%)	N (%)	B (%)	Nb+Ti+V (%)	Cr+Mo+Ni (%)	Ni+Cr+Cu+Mo (%)	C.E.V. (%)
≤ 0.30	≤ 0.30	≤ 0.012				≤ 0.70	

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

MECHANICAL PROPERTIES

According to UNI EN 10028

Mechanical characteristics	Direction	Thicknesses	Values
R_e (MPa)	T	≤ 16	≥ 355
		> 16 ≤ 40	≥ 345
R_m (MPa)	T	≤ 16	510-650
		> 16 ≤ 40	510-650
A_{80} (%)	T		≥ 18
A_5 (%)	T		≥ 20
Bend Test 180°			
KV 20°C (J)	T		≥ 40*
KV 0°C (J)	T		≥ 34*
KV -20°C (J)	T		≥ 27*
KV -40°C (J)			
KV -50°C (J)			

** = Standard option*
t = thickness in mm of the test piece for the bend test
ADW1 certification upon request

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 EN 10163-2

CERTIFICATIONS

EN 10204-3.1

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