

ASTM A516 Grade 55 – Technical Datasheet

1. Chemical & Mechanical Properties

Element / Property	Value
C	≤ 0.28%
Mn	≤ 1.35%
P	≤ 0.035%
S	≤ 0.035%
Si	≤ 0.40%
Cu	-
YS	≥ 220 MPa
TS	400 – 520 MPa
Elongation	≥ 23%
Impact	27J min at -29°C
Hardness	N/A

2. Equivalent / Alternative Grades

Standard	Grade	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Cu (%)	YS (MPa)	TS (MPa)	Elongation / Impact
IS 2062	E250C / E250C Cu	≤ 0.26	≤ 1.20	≤ 0.045	≤ 0.040	0.15 – 0.35	-	≥ 260	410 – 530	≥ 23% / Optional
EN 10025-2	S235J2	≤ 0.20	≤ 1.60	≤ 0.035	≤ 0.035	≤ 0.55	-	≥ 235	360 – 510	≥ 26% / 27J @ 20°C
ASTM A283	Grade C	≤ 0.26	≤ 1.20	≤ 0.035	≤ 0.040	-	-	≥ 260	415 – 540	≥ 23% / Optional

3. Common Applications

- Pressure vessels
- Boilers

- Storage tanks

4. Standard Conformance

ASTM A516 Specification for Pressure Vessel Plates, Carbon Steel, for Moderate- and Lower-Temperature Service.

Grade Code Meaning:

Grade number indicates minimum yield strength in ksi (e.g. 55 = 55 ksi = 379 MPa)

5. Disclaimer

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