

# ASTM A516 Grade 55 – Technical Datasheet

## 1. Chemical & Mechanical Properties

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

## 2. Equivalent / Alternative Grades

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