

IS 2002 Grade 1 – Technical Datasheet

1. Chemical & Mechanical Properties

Property	Value
Carbon (C)	≤ 0.15%
Manganese (Mn)	≤ 0.70%
Phosphorus (P)	≤ 0.04%
Sulphur (S)	≤ 0.04%
Silicon (Si)	≤ 0.15%
YS	≥ 235 MPa
TS	340 – 470 MPa
Elongation	≥ 26%
Impact	Optional or as per requirement
Hardness	N/A

2. Equivalent / Alternative Grades

Standard	Grade	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Cu (%)	YS (MPa)	TS (MPa)	Elongation / Impact
EN 10025-2	S235JR	≤ 0.20	≤ 1.60	≤ 0.035	≤ 0.035	≤ 0.55	-	≥ 235	360 – 510	≥ 26% / 27J @ 20°C
ASTM A36	A36	≤ 0.26	≤ 1.35	≤ 0.040	≤ 0.050	≤ 0.40	-	≥ 250	400 – 550	≥ 23% / 27J @ RT

3. Common Applications

- Structural steel components
- Construction and fabrication
- Heavy machinery parts
- Bridge components

4. Standard Conformance

IS 2002: Specification for Structural Steel Sections – Hot Rolled Steel Channels, Angles, Tees, etc.

Grade Code Meaning:

Grade number represents approximate minimum yield strength in MPa.

5. Disclaimer

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