

# 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

All chemical compositions, mechanical properties, dimensions and other technical data presented on this page are provided by Raunaq Steels Trading Pvt. Ltd. for **general reference only**. While we endeavour to ensure that the information is as accurate and up-to-date as possible, **no warranty, express or implied, is given** as to its completeness, correctness or fitness for any particular purpose. Raunaq Steels Trading Pvt. Ltd. **accepts no liability** for any loss or damage arising directly or indirectly from the use of, or reliance upon, the information contained herein.

For **authoritative** and **legally binding** specifications, users must refer to the **official publications** of the relevant standards—such as the BIS, ASTM, EN or JIS standards—available through their respective websites or published documents.