

IS 2002 Grade 2 – Technical Datasheet

1. Chemical & Mechanical Properties

Property	Value
Carbon (C)	≤ 0.20%
Manganese (Mn)	≤ 1.00%
Phosphorus (P)	≤ 0.05%
Sulphur (S)	≤ 0.05%
Silicon (Si)	≤ 0.30%
YS	≥ 275 MPa
TS	410 – 540 MPa
Elongation	≥ 23%
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	S275JR	≤ 0.22	≤ 1.60	≤ 0.035	≤ 0.035	≤ 0.55	-	≥ 275	410 – 560	≥ 23% / 27J @ 20°C
ASTM A572	Gr 42	≤ 0.23	≤ 1.35	≤ 0.040	≤ 0.050	≤ 0.40	-	≥ 290	415 – 550	≥ 23% / 20J @ 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.