

E300BO – Technical Datasheet

1. Chemical & Mechanical Properties

Property	Value
C	≤ 0.20%
Mn	≤ 1.40%
P	≤ 0.045%
S	≤ 0.040%
Si	≤ 0.40%
Cu	-
Yield Strength (YS)	≥ 300 MPa
Tensile Strength (TS)	460 – 590 MPa
Elongation	≥ 22%
Hardness	140 – 170 HB
Impact Test	27J min at 0°C (Charpy V-Notch)

2. Equivalent / Alternative Grades

Standard	Grade	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Cu (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation / Impact
IS 2062	E300BO	≤ 0.20	≤ 1.40	≤ 0.045	≤ 0.040	≤ 0.40	-	≥ 300	460 – 590	≥ 22% / 27J @ 0°C
EN 10025-2	S275JR	≤ 0.22	≤ 1.60	≤ 0.035	≤ 0.035	≤ 0.55	-	≥ 275	410 – 560	≥ 23% / 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

- General structural steel
- Construction and building materials
- Fabrication of machinery parts

- Bridges
- Automotive industry

4. Standard Conformance

IS 2062:2011 – Indian Standard for Hot Rolled Medium and High Tensile Structural Steel.

Grade Code Meaning:

E: Killed steel; 300: Minimum yield strength in MPa; BO: Thermo-mechanically rolled grade

5. Disclaimer

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