RAUNAQ
TRUSTED STEEL

IS_2041_R260 – Technical Datasheet

1. Chemical & Mechanical Properties

A. Chemical Composition

Element	% Composition
Carbon (C)	≤ 0.26%
Manganese (Mn)	≤ 1.20%
Phosphorus (P)	≤ 0.045%
Sulphur (S)	≤ 0.045%
Silicon (Si)	0.15 – 0.35%

B. Mechanical Properties

Property	Value
Yield Strength (YS)	≥ 260 MPa
Tensile Strength (TS)	410 – 530 MPa
Elongation	≥ 23%
Hardness	120 – 150 HB (typical)
Impact Test	Usually not mandatory or application dependent

2. Equivalent / Alternative Grades

A. Chemical Composition Comparison

Standard	Grade	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Cu (%)
IS 2041	R260	≤ 0.26	≤ 1.20	≤ 0.045	≤ 0.045	0.15 – 0.35	-
EN 10025-2	S235JR	≤ 0.20	≤ 1.60	≤ 0.035	≤ 0.035	≤ 0.55	-

ASTM A36	A36	≤ 0.26	≤ 1.35	≤ 0.040	≤ 0.050	≤ 0.40	-

B. Mechanical Properties Comparison

Standard	Grade	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation / Impact
IS 2041	R260	≥ 260	410 – 530	≥ 23% / Optional
EN 10025-2	S235JR	≥ 235	360 – 510	≥ 26% / 27J @ 20°C
ASTM A36	A36	≥ 250	400 – 550	≥ 23% / 27J @ RT

3. Common Applications

- Structural steel for building construction

- Bridges and general fabrication

- Heavy engineering and machinery parts

- Construction of pressure vessels and pipelines

4. Standard Conformance

IS 2041: Specification for Hot Rolled Steel Bars, Rods and Sections – Mild Steel Grades.

Grade Code Meaning:

R: Rolled steel product; 260: Minimum yield strength in MPa

5. Disclaimer

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