

55C6 – IS 2507: 1975– Technical Datasheet

1. Chemical & Mechanical Properties

Property	Value / Range
C (%)	0.50–0.60
Mn (%)	0.60–0.90
Si (%)	0.10–0.35
S max (%)	0.050
P max (%)	0.050
Tensile Strength (MPa)	1 000 – 1 200
Yield Strength (MPa)	≥ 850
Hardness (HB)	280 – 350
Elongation (%)	9

2. Equivalent / Alternative Grades

Grade	Standard	C %	Mn %	Key Alloy	S % max	P % max	Typical σ_u / HB
SAE 1055	ASTM A29	0.50–0.60	0.60–0.90	Si ≤ 0.35	0.040	0.040	σ_u 690 – 870 (normalized); HB 200 – 255
JIS S55C	JIS G 4051	0.52–0.58	0.60–0.90	Si ≤ 0.35	0.040	0.040	σ_u 735 – 880; HB 210 – 255
EN C55E (1.1203)	EN 10083-2	0.52–0.60	0.60–0.90	Si ≤ 0.40	0.025	0.025	σ_u 700 – 950 (QT); HB 215 – 275

3. Common Applications

- Automobile leaf springs
- Laminated springs & flat springs

4. Standard Conformance

Cold-rolled spring-steel strip conforming to IS 2507 : 1975.

5. Disclaimer

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