

# 85C6 – IS 2507: 1975– Technical Datasheet

## 1. Chemical & Mechanical Properties

Property	Value / Range
C (%)	0.80–0.90
Mn (%)	0.60–0.90
Si (%)	0.10–0.35
S max (%)	0.050
P max (%)	0.050
Tensile Strength (MPa)	1 350 – 1 550
Yield Strength (MPa)	≥ 1 150
Hardness (HB)	350 – 430
Elongation (%)	5

## 2. Equivalent / Alternative Grades

Grade	Standard	C %	Mn %	Key Alloy	S % max	P % max	Typical $\sigma_u$ / HB
SAE 1085	ASTM A29	0.80–0.93	0.60–0.90	Si ≤ 0.35	0.040	0.040	$\sigma_u$ 940 – 1140; HB 270 – 335
JIS SK85	JIS G 4401	0.80–0.89	0.60–0.90	Si ≤ 0.35	0.030	0.030	$\sigma_u$ 930 – 1130; HB 270 – 335
EN C85W2 (1.1269)	EN 10132-4	0.80–0.90	0.50–0.90	Si 0.10–0.35	0.025	0.025	$\sigma_u$ 950 – 1180 (+LC); HB 275 – 345

## 3. Common Applications

- High-energy springs
- Handsaw & blades

## 4. Standard Conformance

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

## 5. Disclaimer

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