

# 55Si7 – IS 2507: 1975– Technical Datasheet

## 1. Chemical & Mechanical Properties

Property	Value / Range
C (%)	0.50–0.60
Mn (%)	0.60–0.90
Si (%)	1.50–2.00
S max (%)	0.035
P max (%)	0.035
Tensile Strength (MPa)	1 450 – 1 750
Yield Strength (MPa)	≥ 1 300
Hardness (HB)	420 – 500
Elongation (%)	6

## 2. Equivalent / Alternative Grades

Grade	Standard	C %	Mn %	Key Alloy	S % max	P % max	Typical $\sigma_u$ / HB
SAE 9255	ASTM A29	0.52–0.60	0.75–1.00	Si 1.50–2.00	0.040	0.040	$\sigma_u$ 1500 – 1800 (QT); HB 440 – 520
JIS SUP9	JIS G 4801	0.52–0.60	0.60–0.90	Si 1.50–2.00	0.035	0.035	$\sigma_u$ 1470 – 1760; HB 430 – 510
EN 55Si7 (1.5026)	EN 10089	0.52–0.60	0.60–0.90	Si 1.50–2.00	0.035	0.035	$\sigma_u$ 1450 – 1750; HB — ( $\leq$ 280 +S)

### 3. Common Applications

- Automotive leaf & parabolic springs
- Heavy-duty suspension components

### 4. Standard Conformance

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

### 5. Disclaimer

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