RAUNAQ
TRUSTED STEEL

50Cr4V2 – IS 2507: 1975– Technical Datasheet

1. Chemical & Mechanical Properties

Property	Value / Range
C (%)	0.47–0.55
Mn (%)	0.60–0.90
Si (%)	0.15–0.35
Cr (%)	0.90–1.20
V (%)	0.15–0.30
S max (%)	0.035
P max (%)	0.035
Tensile Strength (MPa)	1 350 – 1 650
Yield Strength (MPa)	≥ 1 150
Hardness (HB)	380 – 460
Elongation (%)	6

2. Equivalent / Alternative Grades

Grade	Standard	C %	Mn %	Key Alloy	S % max	P % max	Typical σu / HB
SAE 6150	ASTM A29	0.48–0.53	0.70–0.90	Si 0.15–0.35; Cr 0.80–1.10; V 0.15–0.25	0.040	0.040	σu 980 – 1220 (QT); HB 285 – 352
JIS SUP10	JIS G 4801	0.48–0.55	0.60–0.90	Si 0.15–0.35; Cr 0.90–1.20; V 0.15–0.30	0.035	0.035	σu 1150 – 1450; HB 310 – 380
EN 51CrV4 (1.8159)	EN 10089	0.47–0.55	0.70–1.10	Si 0.15–0.40; Cr 0.90–1.20; V 0.10–0.25	0.025	0.025	σu 1270 – 1570 (QT); HB 320 – 390

3. Common Applications

- High-load suspension springs

- Valve & clutch springs with high dynamic duty

4. Standard Conformance

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

5. Disclaimer

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