

51CrV4

Chromium-Vanadium Spring / Q&T Steel

W.-Nr. 1.8159

AISI/SAE 6150

EN 10083-3 / EN 10089

Delivery +A, +QT

Density 7.85 g/cm³

CHEMICAL COMPOSITION

ELEMENT	WEIGHT %
C	0.47–0.55
Si	≤ 0.40
Mn	0.70–1.10
P	≤ 0.025
S	≤ 0.025
Cr	0.90–1.20
V	0.10–0.25

MECHANICAL PROPERTIES (+QT)

SECTION (MM)	R _{EH} MIN MPA	R _M MPA	A MIN %
d ≤ 16	900	1100–1300	9
16 < d ≤ 40	800	1000–1200	10
40 < d ≤ 100	700	900–1100	11

INTERNATIONAL EQUIVALENTS

EN	51CrV4	JIS	SUP10
W.-Nr. (DIN)	1.8159	GOST	≈ 50XΦA (50KhFA)
AISI/SAE	6150	BS (UK)	≈ 735A50 (EN47)
ASTM	A29 / A231 (6150)	GB (China)	≈ 51CrVA

TYPICAL APPLICATIONS

- Coil (helical) and leaf springs
- Torsion bars
- Heavily loaded Q&T parts
- Hand tools, chisels and punches
- Shafts needing high fatigue strength
- Agricultural and automotive spring elements

Values are given per the relevant standard and are for information only; they do not replace the order specification. They may vary with section size, delivery condition and heat treatment. Binding values are those of the order confirmation and inspection document (EN 10204 3.1).

Quotation and stock

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