STEEL GRADE DATASHEET · ÇELIK KALITESI FÖYÜ

55Cr3

Chromium Spring Steel (EN 10089)

W.-Nr. **1.7176** | AISI/SAE ≈ **5155 / 5160** | EN 10089 | Delivery **+AR, +S, +A, +AC** | Density **7.85 g/cm³**

CHEMICAL COMPOSITION

ELEMENT	WEIGHT %
C	0.52–0.59
Si	≤ 0.40
Mn	0.70–1.00
P	≤ 0.025
S	≤ 0.025
Cr	0.70–1.00

MECHANICAL PROPERTIES (+QT · EN 10089)

SECTION (MM)	R_{EH} MIN MPA	R_M MPA	A MIN %
Ref. +QT	1250	1400–1700	3

Hardness Note: +A ≤ 248 HB · +S ≤ 280 HB · +AC ≤ 230 HB (EN 10089). After quenching and tempering (Annex D guidance) Rm 1400–1700 MPa, roughly 44–50 HRC (approximate conversion).

INTERNATIONAL EQUIVALENTS

EN	55Cr3
W.-Nr. (DIN)	1.7176
AISI/SAE	≈ 5155 / 5160
JIS	≈ SUP9
GOST	≈ 50ХГА (50KhGA)
BS (UK)	≈ 527A60
GB (China)	≈ 55CrMnA

TYPICAL APPLICATIONS

- Truck and trailer leaf (parabolic) springs
- Coil springs
- Anti-roll (stabiliser) bars
- Small-section torsion bars
- Spring elements for agricultural machinery
- General engineering springs

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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