STEEL GRADE DATASHEET · ÇELIK KALITESI FÖYÜ

34CrMo4

Chromium-Molybdenum Steel for Quenching and Tempering

W.-Nr. **1.7220** | AISI/SAE ≈ **4135** | EN 10083-3 | Delivery **+A, +QT** | Density **7.85 g/cm³**

CHEMICAL COMPOSITION

ELEMENT	WEIGHT %
C	0.30–0.37
Si	≤ 0.40
Mn	0.60–0.90
P	≤ 0.025
S	≤ 0.035 (34CrMoS4: 0.020–0.040)
Cr	0.90–1.20
Mo	0.15–0.30

MECHANICAL PROPERTIES (+QT)

SECTION (MM)	R_{EH} MIN MPA	R_M MPA	A MIN %
d ≤ 16	800	1000–1200	11
16 < d ≤ 40	650	900–1100	12
40 < d ≤ 100	550	800–950	14
100 < d ≤ 160	500	750–900	15
160 < d ≤ 250	450	700–850	15

Hardness Note: +QT: Rm 700–1200 MPa ≈ 205–355 HB · HB values are an approximate conversion per EN ISO 18265; EN 10083-3 specifies strength, not hardness, for +QT · +A (soft annealed) for machining.

INTERNATIONAL EQUIVALENTS

EN	34CrMo4
W.-Nr. (DIN)	1.7220
EN (S)	34CrMoS4 1.7226
AISI/SAE	≈ 4135 / 4137
JIS	≈ SCM435
GOST	≈ 35XM (35KhM)
AFNOR (old)	≈ 34CD4
BS 970 (UK)	≈ 708A37
GB (China)	≈ 35CrMo

TYPICAL APPLICATIONS

- Shafts, axles and gear shafts
- Gears and couplings
- High-strength bolts and studs
- Seamless pressure gas cylinders
- Automotive driveline and axle parts
- Forgings for machinery and power transmission

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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