STEEL GRADE DATASHEET · ÇELIK KALITESI FÖYÜ

S275JR

Non-Alloy Structural Steel (EN 10025-2)

W.-Nr. **1.0044** | EN 10025-2

Delivery **+AR, +N** | Density **7.85 g/cm³**

CHEMICAL COMPOSITION

ELEMENT	WEIGHT %
C	≤ 0.21 (d ≤ 40) · ≤ 0.22 (d > 40)
Si	–
Mn	≤ 1.50
P	≤ 0.035
S	≤ 0.035
N	≤ 0.012
Cu	≤ 0.55
CEV	≤ 0.40 (d ≤ 40) · ≤ 0.42 (40 < d ≤ 150)

MECHANICAL PROPERTIES (+AR / +N)

SECTION (MM)	R_{EH} MIN MPA	R_M MPA	A MIN %
d ≤ 16	275	410–560	23
16 < d ≤ 40	265	410–560	23
40 < d ≤ 63	255	410–560	22
63 < d ≤ 80	245	410–560	21
80 < d ≤ 100	235	410–560	21
100 < d ≤ 150	225	400–540	19

Hardness Note: EN 10025-2 does not specify hardness. A tensile strength of 410–560 MPa corresponds to roughly 120–165 HB (approximate conversion per EN ISO 18265, not a standard value).

INTERNATIONAL EQUIVALENTS

EN	S275JR
W.-Nr. (DIN)	1.0044
DIN 17100 (old)	St 44-2
BS 4360 (old)	43B
AFNOR (old)	E28-2
UNI (old)	Fe 430 B
ASTM	≈ A36
JIS	≈ SS400
GB (China)	≈ Q275B

TYPICAL APPLICATIONS

- Steel structures and load-bearing members
- Welded frames, platforms and stairs
- Machine chassis, bases and housings
- Connection plates, flats and brackets
- Agricultural, construction and handling equipment
- General fabrication with bolted joints

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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