

S235JR

Unalloyed structural steel · Material no. 1.0038

S235JR is the most widely used general structural steel – easily weldable and formable. For structural tubes, steelwork and pipe supports in non-pressure applications.

1.0038
MATERIAL NO.

≥ 235 MPa
YIELD STRENGTH REH
(T ≤ 16 MM)

360–510 MPa
TENSILE STRENGTH RM

**structural, not
creep-resistant**
SERVICE TEMP.

Application

- Structural and steelwork tubes
- Pipe supports, brackets and cross-beams
- General steel and mechanical engineering

Chemical composition (typical, wt.-%, per EN)

Element	Content (%)
C	≤ 0.17
Mn	≤ 1.40
P	≤ 0.035
S	≤ 0.035
N	≤ 0.012
Cu	≤ 0.55

Mechanical properties (typical at RT, per EN)

Property	Value
Yield strength ReH (t ≤ 16 mm)	≥ 235 MPa
Tensile strength Rm	360–510 MPa
Elongation A	≥ 26 %
Impact energy KV (+20 °C)	≥ 27 J

Standards & supply

Topic	Detail
Standards	EN 10025-2 (structural steel), EN 10210/10219 (hollow sections)
ASME/ASTM equivalent	~ ASTM A36
Short name / aka	Konstruktionsstahl · S235
Product forms	Pipes, flanges, fittings – seamless/welded, EN 10204 3.1/3.2 mill certificate

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All data are typical values per the relevant EN standards for first orientation – without warranty. The applicable standard and the mill certificate of the delivery are decisive.