RAUNAQ
TRUSTED STEEL

S355QL – Technical Datasheet

1. Chemical & Mechanical Properties

A. Chemical Composition

Element	% Composition
Carbon (C)	≤ 0.20%
Silicon (Si)	≤ 0.80%
Manganese (Mn)	≤ 1.70%
Phosphorus (P)	≤ 0.020%
Sulphur (S)	≤ 0.010%
Chromium (Cr)	≤ 0.30%
Nickel (Ni)	≤ 0.80%
Molybdenum (Mo)	≤ 0.50%

B. Mechanical Properties

Property	Value
Yield Strength (YS)	≥ 355 MPa (≤50 mm)
Tensile Strength (TS)	470 – 630 MPa
Elongation	≥ 22%
Impact Test	≥ 27 J at -40 °C

2. Equivalent / Alternative Grades

Standard	Grade	YS (MPa)	TS (MPa)	Impact
ASTM A709	HPS 50W	345	485–620	≥ 27 J @ -40 °C
ISO 630-6	S355Q	355	470–630	≥ 27 J @ -40 °C
JIS G3106	SM490YB-QT	355	490–610	≥ 27 J @ -40 °C

3. Common Applications

- Bridges and flyovers

- Building structures

- Cranes and lifting equipment

- Offshore platforms

4. Standard Conformance

EN 10025-6:2004 + A1:2009 – Quenched and tempered structural steel.

"S" denotes structural, "355" minimum yield (MPa), "Q" quenched & tempered, "L" -40 °C

impact test.

5. Disclaimer

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