S460MC High-Strength Steel

OMEGA STEEL CO.
Istanbul · Dilovası plant

1.0982 · S460MC is the 460 MPa step of the EN 10149-2 thermomechanical family (material number 1.0982, formerly QStE 460 TM): 30 % more yield than S355MC with the same low carbon and the same cold-forming guarantees (bend radius 1–1.5 × t). It is the grade chosen when a chassis or boom designed in S355MC must lose weight without changing the forming process. Supplied as coil and cut sheet, 2–12 mm, to order.

1.0982 | Yield ≥ 460 MPa | Bend 1–1.5 × t | 2–12 mm to order | KV 40 J at −20 °C

S460MC is the quiet middle child of the MC range — less famous than S355MC or S700MC, but the one that lets a trailer builder take 15–20 % out of a cross-member without touching the press-brake tooling. We bring it in from EU and Turkish mills to order and cut it to length in Dilovası.

CHEMICAL COMPOSITION

Element	C	Si	Mn	P	S	Al	Nb	V	Ti
max. % (ladle)	0.12	0.50	1.60	0.025	0.015	≥ 0.015	0.09	0.20	0.15

Nb + V + Ti ≤ 0.22 %. CEV typically 0.30–0.34.

MECHANICAL PROPERTIES

Thickness	Yield ReH min (MPa)	Tensile Rm (MPa)	Elongation min	Impact KV
1.5–3 mm	460	520–670	13 (A80)	—
> 3 mm	460	520–670	17 % (A5)	40 J at −20 °C (long.)

EQUIVALENT GRADES

System	Grade	Note
SEW 092	QStE 460 TM	old German name
EN 10025-4	S460M / S460ML (plate)	plate, not strip
ASTM	A1011 HSLAS Gr. 65 / A656 Gr. 65	near
JIS G3134	SPFH 590	
SSAB	Strenx 460MC	brand

THICKNESS RANGE AND STOCK SIZES

Thickness	Widths × lengths	Availability
2–3 mm	coil 1 000–1 500 mm	to order 3–4 weeks
4–8 mm	coil 1 250–1 500 mm; sheet 1 500 × 6 000	to order 3–4 weeks
10–12 mm	coil 1 500 mm	to order 4 weeks

STANDARDS

EN 10149-2:2013 — S460MC, 1.0982 · EN 10051 tolerances · EN 10204 3.1 · Former SEW 092 QStE 460 TM

Updated 22 September 2026 · figures are nominal; the mill certificate governs