ST52 Steel Plate

OMEGA STEEL CO.
Istanbul · Dilovası plant

ST52 is the DIN 17100 name of the 355 MPa structural grade — ST52-3 N corresponds to S355J2 (1.0577) and ST52-3 U to S355J0; in the market "ST52" is also used loosely for S355JR. We stock S355J2 in 6–30 mm and S355JR in 6–20 mm at Dilovası and roll 3–100 mm to order, cut to size on our own lines; the certificate reads the EN grade.

= S355J2 / S355JR | Yield ≥ 355 MPa | 6–30 mm stock | 3–100 mm to order | EN 10204 3.1 / 3.2

Ask for ST52 in Istanbul, Basra, Cairo or Belgrade and everybody knows what you mean: the strong structural plate, 50 % more yield than ST37, for crane beams, chassis and heavy frames. Since 2004 it is rolled as S355 to EN 10025-2 — J2 for the fully-killed −20 °C version that matches ST52-3 N, JR for the room-temperature version. We ship both from stock and mark the packing list ST52 if your paperwork needs it.

CHEMICAL COMPOSITION

Element	C	Si	Mn	P	S	Cu
max. % (ladle)	0.20 (≤ 30 mm)	0.55	1.60	0.025	0.025	0.55

S355JR allows C 0.24, P/S 0.035 and N 0.012; S355J0 C 0.20, P/S 0.030. CEV ≤ 0.45 up to 30 mm, 0.47 to 40 mm.

MECHANICAL PROPERTIES

Thickness	Yield ReH min (MPa)	Tensile Rm (MPa)	Elongation A min	Impact KV (JR / J0 / J2)
≤ 16 mm	355	470–630	22 %	27 J at +20 / 0 / −20 °C
> 16–40 mm	345	470–630	22 %	27 J
> 40–63 mm	335	470–630	21 %	27 J
> 63–80 mm	325	470–630	20 %	27 J
> 80–100 mm	315	470–630	20 %	27 J

EQUIVALENT GRADES

System	Grade	Note
EN 10025-2	S355J2 (1.0577)	ST52-3 N
EN 10025-2	S355J0 (1.0553)	ST52-3 U
EN 10025-2	S355JR (1.0045)	market "ST52"
ASTM	A572 Gr. 50	345 MPa yield
JIS G3106	SM490B / SM490C	
GB/T 1591	Q355B / Q355D	D = −20 °C
BS 4360	50B / 50D	historic

THICKNESS RANGE AND STOCK SIZES

Thickness	Widths × lengths	Availability
3–5 mm	1 500 × 6 000	to order (sheet)
6–20 mm	1 500 / 2 000 × 6 000	stock — S355JR and S355J2
25–30 mm	2 000 × 6 000	stock — S355J2
40–100 mm	2 000–2 500 × 6 000–12 000	to order 2–4 weeks (S355J2+N)

STANDARDS

DIN 17100 — ST52-3 N / ST52-3 U (withdrawn) · EN 10025-2 — S355J2 (1.0577) / S355J0 (1.0553) / S355JR (1.0045) · EN 10029 class A · EN 10164 Z-quality on request