

1.0045 / 1.0553 / 1.0577 · Hot-rolled structural plate S355 to EN 10025-2 in the JR (+20 °C), J0 (0 °C) and J2 (−20 °C) impact variants, normalized (+N) on request, 355 MPa yield, 6–100 mm thick, 1 500–2 500 mm wide, from stock in Dilovası; cut, bevelled, drilled, shot-blasted and primed for cranes, heavy structures, trailers, wind and mining equipment.

1.0045 / 1.0553 / 1.0577	S355JR · J0 · J2+N	6 – 100 mm	355 MPa yield	ST52-3 · A572 Gr. 50	UT · 3.2 on request
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S355 is the structural steel of primary members: 355 MPa yield, 470–630 MPa tensile, 20–22% elongation. JR, J0 and J2 differ only in the temperature of the 27 J impact test (+20 / 0 / −20 °C); J2+N (normalized) is what EN 1090 EXC3, crane and offshore specifications call for. Old name ST52-3, US equivalent A572 Grade 50. Stocked 6–100 mm, processed to drawing in Dilovası.

S355JR VS S355J0 VS S355J2 — WHICH TO SPECIFY

Grade	Impact test	Delivery	Typical spec	Price vs JR
S355JR	27 J at +20 °C	As rolled	General structures in mild climates, secondary members	1.00
S355J0	27 J at 0 °C	As rolled / +AR	Buildings in EU/Gulf, bridges (secondary)	1.01–1.02
S355J2	27 J at −20 °C	As rolled or +N	Primary members, cranes, EN 1090 EXC2/3, cold regions	1.02–1.04
S355J2+N	27 J at −20 °C	Normalized	Offshore, wind towers, heavy welded structures, pressure parts	1.05–1.08
S355K2	40 J at −20 °C	+N	Heavy plate, high restraint welds	1.06–1.10

MECHANICAL PROPERTIES BY THICKNESS

Thickness	Yield min (MPa)	Tensile (MPa)	Elongation min	CEV max
≤ 16 mm	355	470–630	22%	0.45
16 – 40 mm	345	470–630	22%	0.45
40 – 63 mm	335	470–630	21%	0.47
63 – 80 mm	325	470–630	21%	0.47
80 – 100 mm	315	470–630	21%	0.47

Chemistry: C ≤ 0.20 (0.22 > 30 mm), Mn ≤ 1.60, Si ≤ 0.55, P/S ≤ 0.025 (J2). Full tables on [steelstandart.com](#).

EQUIVALENTS: ST52-3, A572 GRADE 50, SM490

Standard	Grade	Yield	Note
DIN 17100	St52-3 (N / U)	355	Superseded by S355J2 (N) / J0 (U)
ASTM	A572 Gr. 50	345	Dual-certified on many heats
ASTM	A992	345–450	Shapes; plate by A572
JIS G3106	SM490A/B/C	325	Welded structures
GOST 19281	17G1S / 09G2S	325–345	CIS specs; 09G2S ≈ S355J2
BS 4360	50B / 50D	355	Superseded; 50D ≈ J2

WEIGHT CHART

Thickness	kg/m²	2 000 × 6 000 (kg)	2 500 × 12 000 (kg)
6 mm	47.1	565	1 413
8 mm	62.8	754	1 884
10 mm	78.5	942	2 355
12 mm	94.2	1 130	2 826
15 mm	118	1 413	3 533
20 mm	157	1 884	4 710
25 mm	196	2 355	5 888
30 mm	236	2 826	7 065
40 mm	314	3 768	9 420
50 mm	393	4 710	11 775
60 mm	471	5 652	14 130
80 mm	628	7 536	18 840
100 mm	785	9 420	23 550

STANDARDS

EN 10025-2 (S355JR / J0 / J2 / K2, +N) · EN 10029 (tolerances) · EN 10160 (ultrasonic testing) · ASTM A572 Gr. 50 / A992 · DIN 17100 St52-3 (superseded) · JIS G3106 SM490