

1.0553 · S355J0 is the 0 °C impact member of the S355 family (J = 27 J, 0 = 0 °C), material number 1.0553, the successor of DIN ST52-3 U. It is chosen for outdoor structures in temperate climates where JR is not enough and J2 is not demanded. We roll it to order in 5–80 mm; S355J2 from stock covers any J0 requirement when time is short.

1.0553	Yield ≥ 355 MPa	KV 27 J at 0 °C	5–80 mm to order	S355J2 stock substitute
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J0 is the grade between the two everyone stocks. It appears in Eurocode-based designs for exposed steelwork in the Mediterranean and Gulf, in wind-turbine and telecom towers, and in tenders that copied a German specification with ST52-3 U. We supply it from the Turkish mill programme in 1–3 weeks, or substitute S355J2 immediately from Dilovası — J2 exceeds J0 in every respect.

CHEMICAL COMPOSITION

Element	C	Si	Mn	P	S	N	Cu
max. % (ladle)	0.20 (≤ 30 mm)	0.55	1.60	0.030	0.030	0.012	0.55

C 0.22 above 30 mm. CEV max 0.45 (≤ 30 mm), 0.47 (30–40 mm), 0.49 (40–150 mm).

MECHANICAL PROPERTIES

Thickness	Yield ReH min (MPa)	Tensile Rm (MPa)	Elongation A min	Impact KV (long.)
≤ 16 mm	355	470–630	22 %	27 J at 0 °C
> 16–40 mm	345	470–630	22 %	27 J at 0 °C
> 40–63 mm	335	470–630	21 %	27 J at 0 °C
> 63–80 mm	325	470–630	20 %	27 J at 0 °C

EQUIVALENT GRADES

System	Grade	Note
DIN 17100	ST52-3 U	direct predecessor
ASTM	A572 Gr. 50 (with 0 °C CVN)	impact by supplementary req.
JIS G3106	SM490B	0 °C, 27 J
GB/T 1591	Q355C	C = 0 °C
BS 4360	50C	historic
ISO 630	E355C	

THICKNESS RANGE AND STOCK SIZES

Thickness	Widths × lengths	Availability
5–12 mm	1 500 / 2 000 × 6 000	to order 1–3 weeks
15–40 mm	2 000 / 2 500 × 6 000–12 000	to order 1–3 weeks
50–80 mm	2 000–2 500 × 6 000–12 000	to order 3–4 weeks
any	S355J2 from stock as substitute	3–7 days

STANDARDS

EN 10025-2:2019 — S355J0, 1.0553 · DIN 17100 — ST52-3 U (withdrawn) · EN 10029 class A · EN 10204 3.1 / 3.2