Corten Steel Sheet (S355J2WP)

OMEGA STEEL CO.
Istanbul · Dilovası plant

Weathering steel (Corten-type) sheet and plate to EN 10025-5 S355J0WP / S355J2WP (ASTM A588, A242 equivalents), 1–10 mm from stock and up to 40 mm to order, 1 000–2 000 mm wide, laser- and plasma-cut to drawing, pre-weathered on request; for architectural façades, cladding, sculptures, planters, garden edging and bridge and container structures.

S355J2WP · S355J0WP | A588 / A242 equivalent | 1 – 10 mm stock, to 40 mm | Laser-cut · folded · pre-weathered | No paint needed

Corten® is a brand; the steel is weathering structural steel S355J2WP / S355J0WP (EN 10025-5), the European equivalent of ASTM A588 and A242. Its copper-chromium-phosphorus chemistry grows a stable rust patina that stops corroding after 2–5 years, so it needs no paint. We stock 1 to 10 mm sheet and plate, cut it by laser and plasma to your DXF, fold it into planters and cladding cassettes, and can pre-weather panels

GRADES AND EQUIVALENTS

Grade	Yield (MPa)	Tensile (MPa)	Impact	Thickness	Notes
S355J0WP	355	470–630	27 J at 0 °C	≤ 12 mm	High phosphorus; sheet, cladding, art
S355J2WP	355	470–630	27 J at −20 °C	≤ 12 mm	Stock grade; export standard
S355J2W	355	470–630	27 J at −20 °C	≤ 100 mm	Low P, weldable structural plate, bridges
S355K2W	355	470–630	40 J at −20 °C	≤ 100 mm	Heavy structural
ASTM A588 Gr. A/B	345	485 min	—	≤ 100 mm	US structural equivalent of S355J2W
ASTM A242 Type 1	345	480 min	—	≤ 19 mm	Equivalent of S355J0WP
ASTM A606 Type 4	345	480 min	—	sheet	Cold- and hot-rolled sheet

SIZES, THICKNESS AND WEIGHT

Thickness	kg/m²	1 000 × 2 000 (kg)	1 250 × 2 500 (kg)	1 500 × 3 000 (kg)	Typical use
1.0 mm	7.9	16	25	35	Cladding cassettes, screens, laser art
1.5 mm	11.8	24	37	53	Façade panels, signage
2.0 mm	15.7	31	49	71	Planters, edging, cladding
3.0 mm	23.6	47	74	106	Planters, screens, fire pits, sculptures
4.0 mm	31.4	63	98	141	Retaining edges, furniture, structures
5.0 mm	39.3	79	123	177	Structural cladding, stairs
6.0 mm	47.1	94	147	212	Structures, bridges (J2W)
8.0 mm	62.8	126	196	283	Structures
10 mm	78.5	157	245	353	Structures, columns

Up to 40 mm (S355J2W) on mill order; widths 1 000 / 1 250 / 1 500 / 2 000 mm; coil 1.5–6 mm on request.

THE WEATHERING PROCESS — HOW LONG TO RUST AND WHAT IT LOOKS LIKE

Time	Appearance	Notes
Delivery	Grey-black mill scale or blasted grey	Blasting (Sa 2½) gives the most even patina
1–4 weeks	Orange, streaky	Run-off stains adjacent surfaces — protect concrete and glass
3–6 months	Orange-brown, even	Surface still dusty to touch
1–2 years	Dark brown, matt	Patina bonding; run-off decreases
2–5 years	Stable chocolate / purple-brown	Corrosion rate 1–5 µm/yr; no more staining

CORTEN VS PAINTED STEEL VS GALVANIZED VS STAINLESS

	Weathering (corten)	Painted S235	Galvanized	Stainless 316
Maintenance	None after patina	Repaint every 8–15 yr	None 20–30 yr	None
Look	Rust patina, evolving	Any RAL	Zinc grey	Bright / brushed
Marine / wet	Not suitable	Good with system	Good	Best
Material cost per ton	2.0–2.5	1.0 + paint	1.3	4.5–5.5
Run-off staining	Yes, first 2 years	No	No	No

STANDARDS

EN 10025-5 (structural steels with improved atmospheric corrosion resistance) · ASTM A588 / A588M Grade A/B · ASTM A242 · ASTM A606 Type 4 (sheet) · EN 10029 / EN 10051 (tolerances)