S355J0WP Corten Sheet

OMEGA STEEL CO.
Istanbul · Dilovası plant

1.8945 · EN 10025-5 · S355J0WP is the 0 °C-impact version of the phosphorus-alloyed weathering steel: identical chemistry and patina to S355J2WP, the same 355 MPa yield, with the Charpy test at 0 °C instead of −20 °C — irrelevant for a façade panel or a planter, which is why it is often the cheaper and more available choice for architectural and landscape work. Sheet 1–10 mm, laser-cut and folded at Dilovası; stock is shared with J2WP.

1.8945 · EN 10025-5 | Corten A class | 27 J at 0 °C | 1–10 mm sheet | Same patina as J2WP

For anything that hangs on a wall or stands in a garden, the −20 °C impact guarantee of J2WP buys nothing — the same sheet certified as S355J0WP does the same job. Fabricators who order corten by the ton know this, and we quote whichever certificate is in stock.

CHEMICAL COMPOSITION

Element	C	Si	Mn	P	S	Cr	Cu	Ni	N
max. % (ladle)	≤ 0.12	≤ 0.75	≤ 1.00	0.06–0.15	≤ 0.040	0.30–1.25	0.25–0.55	≤ 0.65	≤ 0.009

Identical to S355J2WP except S ≤ 0.040 (J2WP: 0.035). Heats are commonly dual-certified J0WP/J2WP.

MECHANICAL PROPERTIES

Property	Requirement	Typical value	Note
Yield strength ReH	≥ 355 MPa	380–430 MPa	
Tensile strength Rm	470–630 MPa	500–560 MPa	
Elongation A	≥ 22 %	24–30 %	
Charpy V	≥ 27 J at 0 °C	> 60 J	J0 — only difference to J2WP
Bendability	1–1.5 × t		
Patina corrosion rate	—	2–5 µm/year	after stabilisation

EQUIVALENT GRADES

System	Grade	Note
EN 10025-5	S355J0WP (1.8945)	the standard
EN 10025-5	S355J2WP (1.8946)	same steel, −20 °C
Trade name	Corten A	
ASTM	A606 Type 4 / A242	approx.
JIS	SPA-H	
GB/T 4171	Q355GNH	

WHERE WEATHERING STEEL WORKS — AND WHERE IT DOES NOT

Exposure	Patina forms?	Expected loss	Advice
Inland urban / rural, freely exposed (C2–C3)	yes, 6–18 months	2–5 µm/yr	ideal
Industrial atmosphere (C4)	yes, faster	5–10 µm/yr	good; add 0.5–1 mm allowance
Coastal > 2 km from sea	yes, slower	5–15 µm/yr	acceptable; rinse-exposed faces
Marine splash / < 500 m from sea	no stable patina	> 30 µm/yr	use 316 stainless or paint
Sheltered, never wetted (soffits, interiors)	stays orange and dusty	low	seal with clear coat if look matters
Permanently damp, buried, in water	no	like plain steel	do not use; or coat
De-icing salt spray (roadside)	poor	high	avoid or paint

Bottom edges in contact with wet soil rust fastest — set planters and edging on gravel or a 10–20 mm gap.

STANDARDS

EN 10025-5 — S355J0WP (1.8945) · ASTM A606 Type 4 / A242 (approx.) · EN 10051 tolerances · EN 10204 3.1

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