Omega Profiles

OMEGA STEEL CO.
Istanbul · Dilovası plant

Omega profiles — hat or top-hat sections, named for their Ω shape — are the light galvanized rails that hold cladding, roof sheets, ceilings and solar panels off the structure behind them. Two flanges screw to the support, the raised crown carries the sheet, and the cavity between gives ventilation, insulation depth or cable space. We roll them at Dilovası in crown heights 20–100 mm and 0.5–2.5 mm from DX51D and S280GD Z140–Z275 strip, plain, slotted or punched, in lengths to 13.5 m.

Crown 20–100 mm | 0.5–2.5 mm | Z140 / Z275 | Plain, slotted, punched | Lengths to 13.5 m

Every rain-screen façade and every roof laid over insulation is held on omega profiles: light, straight, galvanized, screwed on by the thousand. They are the simplest section we roll and the one we make in the greatest number of metres.

GRADES, STANDARDS AND TOLERANCES

Grade / standard	Yield (MPa)	Note
DX51D+Z140 (EN 10346)	≈ 140 (not guaranteed)	furring, ceilings, indoor sub-frames
DX51D+Z275	≈ 140	outdoor battens, unheated buildings
S280GD+Z275	280	structural battens and façade rails
S350GD+Z275	350	solar rails, long spans
ZM120–ZM175 (zinc-magnesium)	—	coastal, cut-edge protection, on request

Zinc-magnesium (ZM) strip protects cut edges and slots better than Z275 and is offered on 10 t lots.

OMEGA PROFILE SECTION TABLE

Crown height (mm)	Crown width (mm)	Flange width (mm)	t (mm)	kg/m	Typical use
20	30	20	0.5–0.8	0.45–0.72	ceiling furring, board lining
25	30	25	0.6–1.0	0.60–1.00	wall furring, cladding sub-frame ≤ 0.6 m
30	35	25	0.8–1.2	0.85–1.30	roof batten over insulation
40	40	30	1.0–1.5	1.25–1.90	façade rail, roof batten 0.9–1.2 m
50	50	30	1.2–2.0	1.75–2.90	solar rails, façade rail 1.2–1.5 m
60	50	35	1.5–2.0	2.30–3.05	ventilated roof spacer, canopy
80	60	40	1.5–2.5	2.95–4.90	deep cavity façades, long spans
100	60	40	2.0–2.5	3.90–4.90	sub-purlin, mezzanine decking support

Web angle 75–90° to order; flange and crown widths adjustable within the roll set. Weights for Z275 strip.

SPAN AND FIXING GUIDE

Profile	Span at 0.6 m spacing	Span at 1.0 m spacing	Fixing
25 × 0.8	0.9 m	0.7 m	2 × 4.8 mm self-drilling screw per flange
40 × 1.2	1.4 m	1.1 m	2 × 5.5 mm screw or M6 anchor
50 × 1.5	1.8 m	1.4 m	2 × 5.5 mm screw / bracket bolt
60 × 2.0	2.3 m	1.8 m	M8 through bracket
80 × 2.0	2.8 m	2.2 m	M8 / M10 bracket
100 × 2.5	3.4 m	2.7 m	M10 bracket

Slotted webs reduce capacity by 10–20 %; wind suction on façades usually governs — check the pull-out of the fixing as well as the profile.

STANDARDS

EN 10346 — DX51D / S280GD + Z140–Z275 strip · EN 10162 — cold-rolled section tolerances · EN 1993-1-3 — where structural · EN 10204 3.1

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