C & Z Purlins

OMEGA STEEL CO.
Istanbul · Dilovası plant

Cold-roll-formed C (cee) and Z (zed) purlins and girts for roof and wall systems, manufactured to order in Dilovası from S280GD, S350GD (and S450GD) pre-galvanized Z275 strip: web depths 100–350 mm, thickness 1.5–3.0 mm, lipped, punched with bolt holes, sag-rod and bracing holes to the fabricator's drawing, lengths 3–13.5 m, sleeved or overlapped continuous systems, with cleats, sag rods and bridging; exported to steel-building fabricators in the Gulf, Africa, CIS and the Balkans.

C · Z · U purlins 100 – 350 mm | 1.5 – 3.0 mm · S350GD+Z275 | Punched to drawing | 3 – 13.5 m | Own roll-forming lines

Every pre-engineered building needs purlins and girts, and they should arrive punched, labelled and ready to bolt: we roll C and Z purlins from S350GD+Z275 strip on our own lines, 100 to 350 mm deep, 1.5 to 3.0 mm thick, up to 13.5 m long, with holes to your drawing, plus cleats, sleeves, sag rods and bridging. Also in ZM (zinc-magnesium) for solar and coastal work.

SECTION TABLE — Z PURLINS

Section	Depth (mm)	Thickness (mm)	kg/m	Ix (cm⁴)	Wx (cm³)	Typical span*
Z100 × 1.5	100	1.5	2.9	58	11.6	3.0 m
Z120 × 1.5	120	1.5	3.2	92	15.3	3.5 m
Z150 × 1.5	150	1.5	3.6	163	21.7	4.5 m
Z150 × 2.0	150	2.0	4.8	215	28.7	5.0 m
Z175 × 2.0	175	2.0	5.2	310	35.4	5.5 m
Z200 × 2.0	200	2.0	5.6	437	43.7	6.0 m
Z200 × 2.5	200	2.5	7.0	543	54.3	6.5 m
Z250 × 2.5	250	2.5	8.0	907	72.6	7.5 m
Z250 × 3.0	250	3.0	9.6	1 083	86.6	8.0 m
Z300 × 3.0	300	3.0	10.8	1 700	113	9.0 m
Z350 × 3.0	350	3.0	12.0	2 500	143	10 m

* purlin spacing 1.5 m, roof load 1.0 kN/m² (dead + live/wind), continuous overlapped system, deflection L/200. Guide only — designed per EN 1993-1-3 by the engineer.

SECTION TABLE — C PURLINS

Section	Depth	Thickness	kg/m	Ix (cm⁴)	Wx (cm³)	Simple span*
C100 × 1.5	100	1.5	2.9	57	11.4	2.5 m
C120 × 1.5	120	1.5	3.2	88	14.7	3.0 m
C150 × 1.5	150	1.5	3.6	150	20.0	3.5 m
C150 × 2.0	150	2.0	4.8	197	26.3	4.0 m
C175 × 2.0	175	2.0	5.2	290	33.1	4.5 m
C200 × 2.0	200	2.0	5.6	410	41.0	5.0 m
C200 × 2.5	200	2.5	7.0	510	51.0	5.5 m
C250 × 2.5	250	2.5	8.0	860	68.8	6.5 m
C250 × 3.0	250	3.0	9.6	1 020	81.6	7.0 m
C300 × 3.0	300	3.0	10.8	1 600	107	8.0 m

* simply supported, 1.5 m spacing, 1.0 kN/m², L/200. Section properties vary slightly with flange width; exact values on the datasheet.

MATERIAL AND COATING

Grade	Yield	Coating	Where
S280GD+Z275	280 MPa	Zinc 275 g/m²	Standard EU / Balkan buildings
S350GD+Z275	350 MPa	Zinc 275 g/m²	Export standard — Gulf, Africa, CIS (lighter sections)
S450GD+Z275	450 MPa	Zinc 275 g/m²	Long spans, high wind/snow
S350GD+ZM250 / ZM310	350 MPa	Zinc-magnesium	Solar structures, coastal, 25-yr warranty
Black (S235JR HRPO) + paint / HDG	235–355	Painted or hot-dip after forming	Heavy 3–4 mm girts, painted structures

STANDARDS

EN 1993-1-3 (design of cold-formed members) · EN 10346 (S280GD / S350GD / S450GD + Z275 or ZM) · EN 10162 (cold-rolled sections, tolerances) · AISI S100 / ASTM A653 (Gulf / US-spec projects) · BS 5950-5 (legacy Gulf specs) · EN 1090-1/-2 (CE for structural components)