

Trapezoidal Sheet 38/151

OMEGA STEEL CO.
Istanbul · Dilovası plant

The 38/151 is the standard industrial roof sheet: 38 mm-deep ribs on a 151 mm pitch, six ribs on a 906 mm cover, rolled from galvanized or pre-painted coil 0.40–0.70 mm. Its depth lets it span 2–3 m between purlins and carry the water of a long roof at slopes down to 7 %, which is why the roofs of warehouses, factories, hangars and agricultural buildings from the Balkans to the Gulf are T38. We roll it at Dilovası in lengths to 14 m, galvanized and in every stock colour, with ridge, eaves and verge flashings, closures and screws.

38 mm rib · 151 mm pitch	Cover 906 mm	0.40–0.70 mm	Purlins 2–3 m	Slope from 7 %
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If a portal-frame building has purlins at 2.5 m, its roof is almost certainly 38/151. It is the profile our roofing line runs day in, day out, and the one our export customers order by the container.

GRADES, STANDARDS AND TOLERANCES

Grade / standard	Yield (MPa)	Note
DX51D+Z100 (EN 10346)	≈ 140 (not guaranteed)	inland roofs, dry climates
DX51D+Z140 / Z275	≈ 140	exposed, coastal, Gulf
S280GD+Z275	280	spans to 3 m, snow loads
S320GD+Z275	320	long spans, to order
PPGI (Z100 + PE / SMP / PVDF)	≈ 140	coloured roofs, EN 10169

Load-span data are calculated for S280GD; DX51D sheet is used at the conservative end of the table.

PROFILE DIMENSIONS AND SPAN TABLE

Item	0.40 mm	0.50 mm	0.60 mm	0.70 mm
Rib height / pitch	38 / 151 mm	38 / 151 mm	38 / 151 mm	38 / 151 mm
Ribs · cover width · overall	6 · 906 · 970 mm	same	same	same
Weight per m² covered (galv.)	4.4 kg	5.5 kg	6.6 kg	7.7 kg
Purlin spacing, 0.75 kN/m²	1.7 m	2.1 m	2.5 m	2.9 m
Purlin spacing, 1.0 kN/m²	1.5 m	1.9 m	2.2 m	2.6 m
Purlin spacing, 1.5 kN/m²	1.2 m	1.6 m	1.9 m	2.2 m
Purlin spacing, 2.0 kN/m² (snow)	1.1 m	1.4 m	1.7 m	1.9 m
Wall girt spacing, 0.6 kN/m² wind	2.0 m	2.4 m	2.8 m	3.1 m
Min. roof slope	7 % (4°)	7 %	7 %	7 %
Max. length	14 m	14 m	14 m	14 m

Loads are total (dead + snow / imposed) on the roof; wind uplift and fixing pull-out may govern on exposed sites. CE load tables for the project case are supplied with the offer.

MATERIAL, THICKNESS AND WEIGHT

Material	Thickness (TCT)	kg/m² covered	Colours	Life (C3 / coastal)	Note
Galvanized DX51D+Z100	0.40–0.50	3.6–4.5	spangle silver	10–15 / 5–8 yr	cheapest; warehouses, sheds
Galvanized Z140–Z275	0.50–0.70	4.5–6.3	silver	15–25 / 8–12 yr	exposed roofs, agriculture
PPGI PE 25 µm on Z100	0.40–0.60	3.7–5.5	RAL 9002, 9010, 3009, 7016, 6005 ...	10–15 / 5–8 yr	the standard coloured roof
PPGI SMP / HDP	0.50–0.60	4.6–5.5	as above	15–25 / 10–15 yr	warranty projects
PPGI PVDF	0.50–0.70	4.6–6.4	as above	25–30 / 15–20 yr	façades, Gulf coast
Aluzinc AZ150	0.45–0.60	4.0–5.4	matt silver	25–30 / 12–15 yr	to order, 10 t

For the Gulf and coastal Africa specify Z275 galvanized or PVDF PPGI; 0.50 mm is the standard roof gauge, 0.60–0.70 in snow regions.

ROOF ACCESSORIES ROLLED AND FOLDED TO MATCH

Item	Size	Material	Note
Ridge cap	2 × 200–300 mm, 3 m	same coil	plain or profiled
Eaves and verge flashings	to drawing, 3–6 m	same coil	
Wall / parapet flashings	to drawing	same coil	
Foam closures	T38 profile	PE foam	eaves and ridge
Self-drilling screws	5.5 × 55–65 mm	zinc-flake, EPDM washer	painted heads for PPGI
Stitching screws	4.8 × 20 mm	stainless / zinc	side laps
Butyl sealant tape	3 × 10 mm	—	end laps, low slopes

Item	Size	Material	Note
Gutters and downpipes	to drawing	same coil	on request

Ordering the accessories with the sheets keeps the whole roof in one colour batch.

STANDARDS

EN 14782 — self-supporting metal sheet for roofing and cladding · EN 10346 — DX51D / S280GD + Z100–Z275 substrate · EN 10169 — coil-coated (PPGI) substrate · EN 1993-1-3 — cold-formed design; EN 10204 3.1