Composite Floor Deck Sheet

OMEGA STEEL CO.
Istanbul · Dilovası plant

Trapezoidal composite floor deck (metal deck, decking sheet) roll-formed from S280GD–S350GD+Z275 galvanized coil in our Dilovası plant: re-entrant and open-trough profiles 50/1000, 60/940 and 75/750 mm with embossments for composite action, 0.70 to 1.20 mm thick, cut to length up to 13.5 m, supplied with edge trims, closures, shear studs and design tables to EN 1994-1-1 for concrete floor slabs in multi-storey steel buildings, mezzanines, car parks and industrial floors; exported by container or truck to the Gulf, Africa, CIS and the Balkans.

50/1000 · 60/940 · 75/750 | 0.70 – 1.20 mm · S350GD+Z275 | Spans to 3.5 m unpropped | Any length to 13.5 m | Own roll-forming line

The deck that turns a steel frame into floors: galvanized trapezoidal profiles 50, 60 and 75 mm deep with embossed webs so the concrete bonds and the sheet becomes the slab reinforcement — no propping up to 3.5 m spans, no formwork, 300–500 m² per day per crew. Rolled from S350GD+Z275 coil on our own lines in 0.70–1.20 mm, cut to bay length, delivered with edge trim, closures and shear studs.

PROFILES

Profile	Depth	Cover width	Thickness	Concrete volume (mm slab)*	Max. unpropped span (1.0 mm)	Use
50/1000 (open trapezoidal)	50 mm	1 000 mm	0.70–1.20	0.075 m³/m² at 100 mm	2.4–2.8 m	Light floors, mezzanines, roofs with screed
60/940 (re-entrant / dovetail)	60 mm	940 mm	0.75–1.20	0.095 m³/m² at 120 mm	2.8–3.2 m	Offices, hotels, car parks — most ordered
75/750 (deep trapezoidal)	75 mm	750 mm	0.80–1.20	0.105 m³/m² at 130 mm	3.2–3.6 m	Long spans, heavy floors, car parks
Roof deck (no embossment)	50 / 75 mm	1 000 / 750	0.70–1.00	—	2.0–3.0 m	Roofs under insulation and membrane

* including the profile troughs. Embossed webs on composite profiles; 20 mm stiffening ribs on wide flanges.

SPAN AND LOAD TABLE

Profile / thickness	Slab 100 mm	Slab 120 mm	Slab 130 mm	Slab 150 mm
50/1000 × 0.75	2.4	2.2	2.1	1.9
50/1000 × 1.00	2.9	2.7	2.5	2.3
60/940 × 0.75	2.7	2.5	2.4	2.2
60/940 × 1.00	3.2	3.0	2.9	2.6
60/940 × 1.20	3.6	3.4	3.2	2.9
75/750 × 0.80	3.1	2.9	2.8	2.6
75/750 × 1.00	3.5	3.3	3.2	2.9
75/750 × 1.20	3.9	3.7	3.5	3.2

Composite-stage capacity (after curing) typically 5–15 kN/m² imposed at these spans; full tables per EN 1994-1-1 and EN 1993-1-3 on the datasheet; the structural engineer confirms.

DECK VS PRECAST VS TIMBER FORMWORK

	Composite deck	Precast hollow-core	In-situ on timber formwork
Weight of slab	2.2–3.0 kN/m²	3.0–4.5 kN/m²	3.6–4.8 kN/m²
Formwork	None (deck)	None	Plywood + props
Propping	Little / none to 3.5 m	None	Full
Speed	300–500 m²/day laying	Crane-dependent	Slow
Craneage	Light bundles	Heavy units	Light
Cost of floor	1.00	1.05–1.20	1.10–1.30
Best for	Steel frames, mezzanines, irregular plans	Long spans, precast frames	Small or complex jobs

STANDARDS

EN 1994-1-1 (composite steel and concrete structures — design) · EN 1993-1-3 (cold-formed steel design, construction stage) · EN 10346 (S280GD / S350GD + Z275) · EN 14509 not applicable; EN 1090 for CE of structural sheet · ASCE / SDI (US-spec projects), BS 5950-4 (legacy Gulf specs)