

Rebar Truss Deck

Steel bar truss decking for composite floors

Rebar truss deck is a profiled steel sheet with a triangular rebar truss welded along it. The truss carries the wet concrete and the construction load, so the deck spans further without propping than plain profiled sheet — which is why it is common on high-rise and long-span composite floors.

Construction

Part	Typical value	Notes
Galvanised base sheet	0.8 – 1.2 mm	Acts as formwork and as bottom reinforcement
Truss	Triangular welded rebar truss	Top chord, diagonals and bottom chord
Truss height	70 – 200 mm	Set by the slab depth and the span
Slab depth	100 – 250 mm typical	Concrete covers the truss to the design depth

Design inputs

Construction stage	The truss and sheet together carry wet concrete and construction load before the concrete hardens — this governs the unpropped span
Final stage	The composite section carries the imposed floor load
Fire	Composite floors are usually designed for a fire period; the reinforcement in the slab is part of that
Bearings	End bearing length and how the deck sits on the beams

Standards referenced

EN 1994-1-1 (composite steel and concrete structures) · EN 1993-1-3 (cold-formed sheeting) · EN 10080 and local rebar standards for the reinforcement · EN 10346 for the coated sheet · national design guidance for rebar truss deck, which is a regionally standardised product

Need a quote? Send the slab depth, span, construction loading and total area.

zt-rfm.com · ztrollformmachine.com · +86 131 6656 7923 · steven@zt-rfm.com