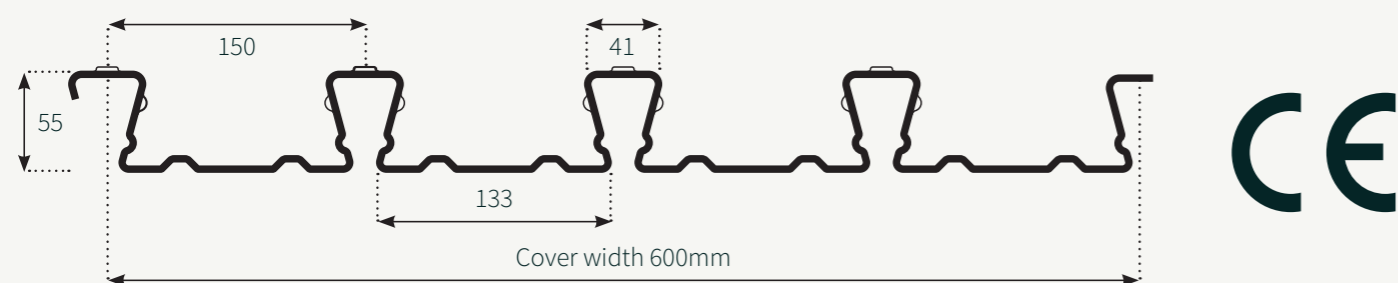


## MetFloor® 55

### 55mm SHALLOW RE-ENTRANT COMPOSITE DECKING PROFILE

The ultimate in lightweight steel decking for all multi-rise buildings.

MetFloor 55 is a traditional dovetail re-entrant shallow composite floor deck. Its profile provides an excellent mechanical key into the concrete slab, offering a strong shear bond augmented by stiffeners located in the profile trough. MetFloor 55 presents a virtually flat soffit and only a relatively thin slab is required for fire design requirements.



### SHEAR STUDS

MetFloor 55 has a wide trough which gives great flexibility and efficiency when placing shear studs.

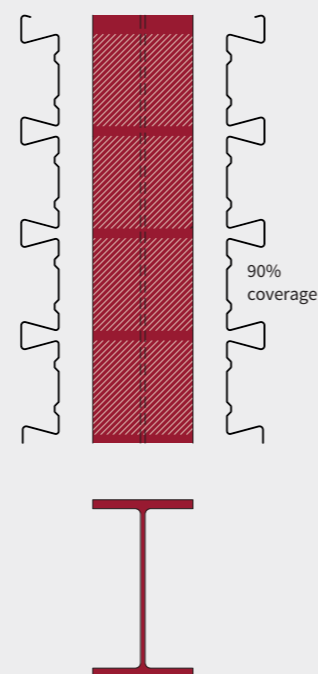
For more information on shear studs see CMF's Composite Shear Connector (CSC) product range.

### FIRE PERFORMANCE

Because the re-entrant dovetail profile has only a very small soffit opening, little heat is transferred through the slab when exposed to fire.

As such, the fire design can be achieved with a smaller slab depth. Fire performance of supporting composite beams is also enhanced with no additional fire protection required to the top flange of the steel beam when used with MetFloor 55 decking (MetFloor 55 can provide ≥85% beam coverage in line with SCI publication P375 guidance).

FIRE PERIOD (minutes)	MINIMUM SLAB DEPTHS FOR NORMAL WEIGHT CONCRETE (mm)	
	Fabric mesh reinforcement	FibreDeck
30	100	100
60	100	100
100	110	110
120	125	125



### SUSPENDED CEILINGS & SERVICES

Services are easy to attach to MetFloor 55 with recessed ribs provided at 150mm centres.

This provides the perfect connection for service hangers via a wedge nut or similar device.

### PRODUCT BENEFITS

- Available in 0.9mm, 1.0mm and 1.2mm gauges
- Unpropped decking spans in excess of 3.5m can be achieved
- Thermally efficient profile, reduces heat transfer and eases attainment of required fire ratings
- Offers a greater concrete mass, providing superior acoustic potential
- Available with a variety of enhanced coating systems for increased corrosion resistance

Nominal thickness (mm)	Steel Grades (N/mm <sup>2</sup> )	Profile depth (mm)	Height of neutral axis (mm)	Profile area (mm <sup>2</sup> )	Profile weight (kN/m <sup>2</sup> )
0.9	S350 / S450	55	18	1648	0.13
1.0	S350 / S450	55	18	1840	0.15
1.2	S350 / S450	55	18	2223	0.18

### METFLOOR 55 COMPOSITE SLAB - CONCRETE VOLUMES & WEIGHTS

Slab depth (mm)	Concrete volume (m <sup>3</sup> /m <sup>2</sup> )	Weight of concrete (kN/m <sup>2</sup> )	
		Wet	Dry
100	0.088	2.25	2.16
110	0.098	2.51	2.41
120	0.108	2.76	2.65
130	0.118	3.02	2.90
140	0.128	3.27	3.14
150	0.138	3.53	3.39
160	0.148	3.78	3.63
170	0.158	4.04	3.88
180	0.168	4.29	4.12
190	0.178	4.55	4.37
200	0.188	4.80	4.61
210	0.198	5.06	4.86
220	0.208	5.31	5.10
230	0.218	5.57	5.35
240	0.228	5.82	5.59
250	0.238	6.08	5.84

### Volume & weight table notes

1. Weight of ponded concrete from beam and decking deflections are not included
2. Weight of decking profile and mesh is not included (see profile properties table for profile weight)
3. Concrete densities are based on normal weight concrete; wet = 2550kg/m<sup>3</sup>, dry = 2450kg/m<sup>3</sup>

