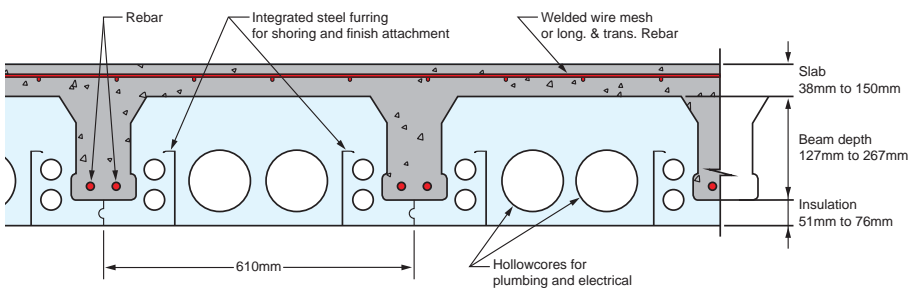




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Quad-Deck uses Plastbau® Technology to create an energy efficient and quality insulating concrete floor or roof system.



### Fast & Flexible

- Delivered to site ready to install (pre-cut and labeled at the factory)
- Easy to handle, lightweight forms
- Up to 9.5m free spans
- Forms available in thicknesses of 178mm to 343mm
- Slab thickness from 45mm to 152mm

### Durable & Sustainable

- No site waste
- Low U-values (0.35 to 0.17)
- Reduced HVAC requirements
- Thermal mass properties; ideal for passive solar designs
- High STC ratings; deadens sound transmission
- Inert material; doesn't support the growth of mould or mildew
- Superior protection against flooding and fire

Dimensioning of Quad-Deck panels according to free span and live load for the most common applications				
Floor Span	Live Load kN/m <sup>2</sup>			
	1.46	2.44	3.90	4.88
2.43m	180mm / 127mm + 50cmm (0.35)	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50m (0.35)	180mm / 127mm + 50mm (0.35)
3.04m	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)
3.65m	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)
4.26m	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 50mm (0.35)	180mm / 127mm + 76mm (0.35)	200mm / 152mm + 63mm (0.30)
4.87m	180mm / 127mm + 63mm (0.35)	200mm / 152mm + 50mm (0.30)	200mm / 152mm + 76mm (0.30)	228mm / 178mm + 63mm (0.26)
5.48m	200mm / 152mm + 63mm (0.30)	228mm / 178mm + 50mm (0.26)	254mm / 203mm + 50mm (0.23)	254mm / 203mm + 76mm (0.23)
6.00m	228mm / 178mm + 63mm (0.26)	254mm / 203mm + 50mm (0.23)	280mm / 229mm + 50mm (0.20)	280mm / 229mm + 76mm (0.20)
6.70m	254mm / 203mm + 76mm (0.23)	280mm / 229mm + 63mm (0.20)	305mm / 254mm + 63mm (0.18)	317mm / 267mm + 63mm (0.17)
7.31m	280mm / 229mm + 76mm (0.20)	317mm / 267mm + 63mm (0.17)		
7.92m	317mm / 267mm + 63mm (0.17)			
Thickness of Quad-Deck Panel / Height of T-Beam + Thickness of Slab (U Value)				

**Remarks:** This table is indicative only. Full engineering required by a qualified and certified engineer. Longer spans and higher live loads are possible. Please consult Quad-Lock's estimating program and/or contact Quad-Lock.

# Living Green Roof

## Quad-Deck is an ideal substrate for living roofs - long spans, high load capacity

- Using Quad-Deck rather than traditional slab will add less incremental mass to the building structure, reducing overall construction costs
- Much less susceptibility to water damage, rot, mould or mildew - far superior to a wood joist roof
- Increased energy savings from Quad-Deck's stay-in-place insulation and from intensive or extensive greening
- Green roofs extend the life of your building by providing protection from the daily temperature changes to the roof membrane
- Green roofs extend the life of your building by providing protection from the daily temperature changes to the roof membrane
- Green roofs are ideally suited for LEED certified projects and for water runoff management



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## Installation Guide

<p><b>1.</b> Walls are prepared and checked to be level and cleared of any debris. Steel work is left projecting up to 1m.</p>	<p><b>2.</b> Support system is setup at right angles to the direction of the Quad-Deck flooring panels.</p>	<p><b>3.</b> First Quad-Deck flooring panel is positioned with ends overlapping the concrete core of the walls.</p>	<p><b>4.</b> A sufficient space between ends is given for concrete to enter with all service penetrations cut onsite.</p>
<p><b>5.</b> Steel bars are bent 90° over the Quad-Deck panels and lengths laid on mounts between each board.</p>	<p><b>6.</b> Steel meshing is placed on top of the bent steel and tied with wire to securely fix in position.</p>	<p><b>7.</b> The outer line of Quad-Lock ICF panels are extended above the level of the poured concrete floor and braced.</p>	<p><b>8.</b> The concrete is poured over the panels to a thickness of between 38 - 150mm and finished as required.</p>

This table is indicative only. Full engineering required by a qualified and certified engineer. Longer spans and higher live loads are possible. Please consult the span table and/or contact Charcon.

## Health and Safety

The following fire protection criteria must be met by any construction designed to Eurocode 2:

Resistance (R), Separation (E) and Isolation (I). The designation letters R, E and I are used together with numbers referring to the resistance in minutes against the ISO standard fire. Quad Deck has awarded the following REI values:

- 40mm slab = REI 120
- 50mm slab = REI 128