

DATA SHEET

Bondek



Overview

Bondek™ is used for floors and ceilings. It serves as a structural component and at the same time forms an attractive exposed surface. Bondek™ is available in several thicknesses and different appearance grades. (Lengths can be made to suit exact requirements). As a structural floor it is able to carry normal loads up to 7m without support, depending on thickness of decking and span configuration (see load table).

The panels are made up in sections covering approximately 300mm wide and in lengths to suit building dimensions. The

underside has "V" shaped edges and is filled and sanded to provide a complete ceiling system.



Benefits

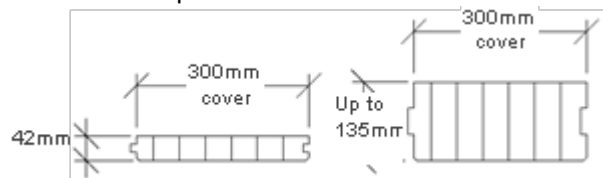
- An attractive prefinished floor with a natural timber look.
- Exceptional fire rating (refer following table).
- Extremely quick to install, saving time and money onsite (300mm cover per plank).
- Very good for low head height situations due to its reduced thickness over traditional floors (no floor joists).
- Diaphragm action obtained by appropriate fixing.
- Good thermal and acoustic insulation.

Notable Projects

- » Auckland Museum – Hanging Dome
- » Auckland International Airport – extensively throughout
- » Eden Park – South Stand, TV & Comm's Room
- » Kinleith Sawmill – New Offices
- » Tonga's Head of State Residence – Tonga
- » Grey Lynn Community Centre
- » Tattoo Apartments – Wellington
- » Scotia Apartment Block – Auckland
- » Numerous private residences.

Applications

- **Residential Floors:** An attractive floor/ceiling for homes.
- **Office / Commercial:** Mezzanine floors in factories, offices, hotels and community halls.
- **Storage:** Well suited for floors which carry heavy loads.
- **Roofs:** Ideal for clear spanning roof panels to give structural timber sarking.
- **Stairs:** Stair treads and risers.



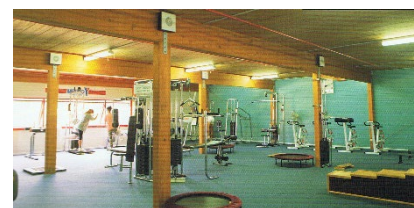
Span Tables

Thickness	Loadin g (kPa)	Two Continuous Spans (Mtrs)	Single Span (Mtrs)	Cantilever (Mtrs)
42mm	1.5	2.6 *1.7	2.0 *1.3	0.8 *0.5
	2.5	2.2 *1.7	1.7 *1.3	0.7 *0.5
	5.0	1.5	1.1	0.4
52mm	1.5	3.1 *2.2	2.4 *1.7	1.0 *0.7
	2.5	2.7 *2.2	2.1 *1.7	0.8 *0.7
	5.0	1.8	1.3	0.5
65mm	1.5	3.9 *2.8	3.0 *2.2	1.2 *0.9
	2.5	3.4 *2.8	2.6 *2.2	1.0 *0.9
	5.0	2.3	1.7	0.6
90mm	1.5	5.1 *3.8	3.9 *2.9	1.6 *1.2
	2.5	4.7 *3.8	3.6 *2.9	1.4 *1.2
	5.0	3.1	2.3	0.9
115mm	1.5	6.4 *4.8	4.9 *3.7	2.0 *1.6
	2.5	5.7 *4.8	4.4 *3.7	1.8 *1.6
	5.0	4.0	2.9	1.1
135mm	1.5	7.3 *5.8	5.6 *4.4	2.2 *1.8
	2.5	6.7 *5.8	5.1 *4.4	2.1 *1.8
	5.0	4.6	3.4	1.1

Span governed by deflection 1/400, or strength.

* These limits on spans have been set to reduce floor liveliness.

Floor dynamics is a complex consideration and experience shows that floor spans based on strength and static load deflection limits alone can be unacceptably lively.



Onsite Care

Keep the decking dry during uncovered erection. Glulam panels are best used in dry conditions. If the moisture content is allowed to vary, the timber could be subject to swelling and movement.

Red Stag TimberLab cannot and will not accept responsibility for problems arising from timber movement due to changes in moisture content experienced on site.



Fire Resistance

Bondek™ has a proven fire resistance. Char forming on the outer perimeter of the planks prevents continuous combustion. Under fire conditions Bondek™ maintains its strength and does not fail.

The allowed charring rate is 0.65mm per minute. Fire rating calculations should be done by a Structural Engineer. Firefighting and insurance industries recognise the superior performance of Glulam under fire.

Thickness	Fire Rating
52mm	½ Hour
65mm	1 Hour
90mm	1 ¼ Hour
115mm	1 ½ Hour
135mm	2 Hour