

NZWOOD

NEW ZEALAND WOOD PRODUCTS LIMITED

January 2014

LP® SolidStart™ I-Beam Floor Joists

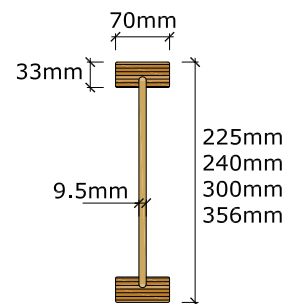


LP® SolidStart™ I-Beams from New Zealand Wood Products (NZWOOD) Limited help make true and uniform floors and ceilings possible for Residential and Commercial construction.

- Available in lengths of up to 12m long
- Fast and easy to install
- Light weight
- No need for mid span blocking
- Ability to cut large holes in web for Ducting, Plumbing and Cabling

I-Built is an engineered wood solution that provides a strong and reliable structure. The Hyne Design HD7 software, technical sales support and layout design package are provided to assist with the design process.

LPI™ 70-T Profile



LP SolidStart I-Beams are made with a Douglas Fir LVL top and bottom flange and a 9.5mm thick OSB web to form a structurally efficient I-section.

Available in 70mm widths and in 225, 240, 300 and 356mm deep sections.

Available untreated or H3.1 treated from stock.

I BUILT™
Building Systems

LP® SolidStart™ I-Beam Floor Span Tables

To use:

1. Determine span condition as either single or continuous & select the appropriate table. If span is continuous, verify that it meets the continuous span criteria listed in the General Notes below.
2. Identify dead load condition as either 40 kg/m² or 95 kg/m² (Timber/Tiled floor). For Tiled floor refer to Hyne Design (HD) 7 software.
3. Select joist centres.
4. Scan down the column until you meet or exceed the span of your application.
5. Select the LPI™ 70-T I-Beam depth

Caution:

For floor systems that require both single span & continuous span joists, it is a good idea to check both before selecting a joist.

Note:

Max spans in these span tables are conservative, and intended as a guide only. For precise spans and deflection analysis please use the HD7 software or contact NZWOOD for assistance.

Single Span – Maximum Allowable Span (M) - LPI™ 70-T

Live Loads: 1.5kPa Distributed 1.8kN Concentrated	Dead Load Timber Floor 40 kg/m ²	I-BEAM DEPTH	400crs	450crs	480crs	600crs
		225	5.0	4.9	4.8	4.5
		240	5.2	5.1	5.0	4.7
		300	6.0	5.8	5.7	5.3
		356	6.6	6.4	6.2	5.9

Live Loads: 2.0kPa Distributed 1.8kN Concentrated	Dead Load Timber Floor 40 kg/m ²	I-BEAM DEPTH	400crs	450crs	480crs	600crs
		225	5.0	4.8	4.7	4.5
		240	5.2	5.0	4.9	4.7
		300	5.9	5.7	5.6	5.3
		356	6.5	6.3	6.2	5.8

Live Loads: 3.0kPa Distributed 2.7kN Concentrated	Dead Load Timber Floor 40 kg/m ²	I-BEAM DEPTH	400crs	450crs	480crs	600crs
		225	4.6	4.4	4.4	4.1
		240	4.8	4.6	4.5	4.3
		300	5.4	5.3	5.2	4.4
		356	6.0	5.8	5.5	4.4

Continuous Span – Maximum Allowable Span (M) - LPI™ 70-T

Live Loads: 1.5kPa Distributed 1.8kN Concentrated	Dead Load Timber Floor 40 kg/m ²	I-BEAM DEPTH	400crs	450crs	480crs	600crs
		225	5.6	5.4	5.3	5.0
		240	5.8	5.6	5.5	5.2
		300	6.6	6.4	6.3	5.9
		356	7.3	7.0	6.9	6.5

Live Loads: 2.0kPa Distributed 1.8kN Concentrated	Dead Load Timber Floor 40 kg/m ²	I-BEAM DEPTH	400crs	450crs	480crs	600crs
		225	5.7	5.5	5.4	5.1
		240	5.9	5.7	5.6	5.3
		300	6.7	6.5	6.4	6.0
		356	7.4	7.2	7.0	6.6

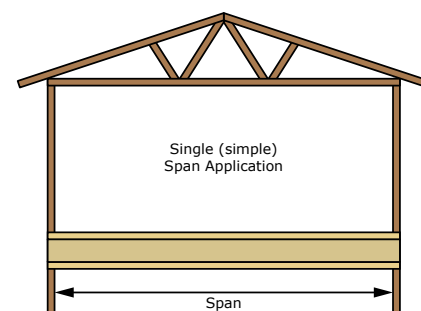
Live Loads: 3.0kPa Distributed 2.7kN Concentrated	Dead Load Timber Floor 40 kg/m ²	I-BEAM DEPTH	400crs	450crs	480crs	600crs
		225	5.1	4.9	4.9	4.6
		240	5.3	5.2	5.1	4.8
		300	6.0	5.9	5.8	5.2
		356	6.6	6.4	6.3	5.2

General notes:

1. Span is the clear distance between supports. Calculation is based on clear span plus 1/2 the bearing lengths.
2. The LP® SolidStart™ I-Beams must span at least 2 adjacent spans to be continuous. To prevent uplift, short span should be > 0.75 times the long span. For continuous span conditions that do not meet this criteria, use the single span table. Always use the longest span with either table.
3. For loading conditions not shown, please contact NZWOOD.

Design assumptions:

1. The single spans listed are the clear distance between supports.
2. The spans are based on uniform floor loads only as listed for each table.
3. Live load deflection has been limited to the lesser of L/400 or 9mm. Permanent load deflection has been limited to lesser of L/300 or 15mm, & dynamic performance is checked as the maximum of 2mm deflection under a 1kN static load.
4. The spans are based on an end bearing length of 38mm & intermediate bearing length of 63mm



The new feature packed HD7 software, provides all the information and assistance required for any project. The software covers all help topics and incorporates information on structural and engineered timber building products, technical data sheets, materials, technical safety data sheets, installation guides and fixing connections.



For more information or support please contact NZWOOD.

