Updated May 2022

Meyer TIMBER®

meyPINE3

Pre-Primed H3 Treated Timber

HANDY SPAN GUIDE

meyPINE3 is manufactured from Radiata Pine.
It is carefully laminated and finger-jointed to be defect and knot-free.
meyPINE3 is dressed all round for a smooth finish and pre-primed with architectural paint, ready for the final top coats of paint to be applied. meyPINE3 is H3 LOSP treated for protection against termites, rot and decay, making it suitable for above ground outdoor projects.
meyPINE3 is available in both structural and non-structural sections, this guide provides span tables for common loading scenarios using the structural section sizes.

Meyer TIMBER Victoria | Meyer TIMBER New South Wales | Meyer TIMBER Queensland | Meyer TIMBER Tasmania

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ROOF MASSES USED IN TABLES

10kg/m² = Polycarbonate/metal roofing and battens

20kg/m² = Metal roofing, battens and lightweight insulation

40kg/m² = AS 1720.3/AS 1684 Sheet roof + ceiling

90kg/m² = AS 1720.3/AS 1684 Tile roof + ceiling

The following tables have been produced in accordance with AS 1720.3-2016, the AS/NZS 1170 loading code series and established engineering principles:

- Members specified in these tables are suitable for use up to and including N3 wind classification.
- Members specified are for use in residential applications. Applicability of loading for commercial application should be confirmed before relying on spans in this guide.
- All meyPINE3 sections in this guide are H3 treated for external weather exposed application and pre-primed. Any cuts, holes or notches must be re-treated with a paint-on or spray-on H3 preservative sealer.
- Sizes or loading configurations not included in this guide can be specified using software which includes meyPINE3 sizes, such as designIT.

DEFINITIONS

Span
Span is the clear span between supports along the length of the member.

Single Span
A member which is supported at two points only.

Continuous Span
A member which is supported at three or more points along its length. If one span is more than twice the adjacent span use the single span option.

Spacing
Spacing is determined as the centre to centre distance between adjacent parallel members such as joists, rafters and the like.

Load Width
Roof Load Width (RLW) and Floor Load Width (FLW) are to be determined as per AS 1684. Typically, they relate to half the span of supported members on each side of a beam plus an overhang. Refer to Clause 2.6 of AS 1684.2 for more information.

Loading
Loading has been taken in accordance with AS 1720.3-2016 for residential applications.

FLOOR JOISTS – SUPPORTING FLOOR LOADS ONLY
TABLE 1

Table 1a - Standard Floor Load (40kg/m² / 1.5kPa)						
Floor Joist Spacing (mm)						
meyPINE3	400	450	600	400	450	600
	Maximum Single Span (m)			Maximum Continuous Span (m)		
90x42 F7	1.5	1.4	1.3	1.7	1.6	1.5
138x42 F7	2.4	2.3	2.2	3.0	2.8	2.6
185x42 F7	3.4	3.2	3.0	4.3	3.9	3.5
230x42 F7	4.4	4.2	3.8	4.8*	4.8*	4.7
280x42 F7	5.2	5.0	4.7	5.2*	5.0*	4.8*

Table 1b - Heavy Floor Load (100kg/m² / 1.5kPa)						
Floor Joist Spacing (mm)						
meyPINE3	400	450	600	400	450	600
	Maximum Single Span (m)			Maximum Continuous Span (m)		
90x42 F7	1.4	1.3	1.1	1.6	1.5	1.4
138x42 F7	2.4	2.3	2.1	3.0	2.8	2.6
185x42 F7	3.2	3.1	2.8	4.0	3.9	3.5
230x42 F7	4.0	3.8	3.5	4.8*	4.7	4.5
280x42 F7	4.8	4.7	4.3	4.8*	4.8*	4.8*

Table 1c - All load cases / span types			
Floor Joist Spacing (mm)			
meyPINE3	400	450	600
	Maximum Cantilever (mm)		
90x42 F7	350	300	250
138x42 F7	600	600	500
185x42 F7	900	850	800
230x42 F7	1000	950	950
280x42 F7	1150	1100	1000

Notes:

- Provide minimum 30mm bearing at end supports and 45mm bearing on internal supports.
- Ensure length suitability for continuous span members.
- Values with an asterisk have been limited by single span or length availability.

FLOOR BEARERS – SUPPORTING FLOOR LOADS ONLY
TABLE 2

Table 2a - Standard Floor Load (40kg/m² / 1.5kPa)												
	Floor Load Width (m)											
meyPINE3	1.2	1.8	2.4	3.0	3.6	4.2	1.2	1.8	2.4	3.0	3.6	4.2
	Maximum Single Span (m)						Maximum Continuous Span (m)					
140x65 GL10	2.5	2.2	2.0	1.8	1.6	1.5	2.8	2.3	2.0	1.8	1.6	1.4
180x65 GL10	3.2	2.8	2.5	2.3	2.1	1.9	3.7	3.0	2.6	2.2	2.0	1.8
240x65 GL10	4.1	3.7	3.4	3.1	2.8	2.6	4.7	3.8	3.3	2.9	2.6	2.4
290x65 GL10	4.7	4.2	3.9	3.7	3.4	2.9	4.8*	4.5	3.9	3.5	3.2	2.9
320x65 GL10	5.0	4.5	4.2	4.0	3.5	3.2	5.0*	4.8*	4.3	3.9	3.5	3.2
360x65 GL10	5.5	5.0	4.6	4.3	3.9	3.6	5.5*	5.0*	4.8*	4.3	3.9	3.6

Table 2b - Heavy Floor Load (100kg/m² / 1.5kPa)												
	Floor Load Width (m)											
meyPINE3	1.2	1.8	2.4	3.0	3.6	4.2	1.2	1.8	2.4	3.0	3.6	4.2
	Maximum Single Span (m)						Maximum Continuous Span (m)					
140x65 GL10	2.1	1.8	1.7	1.5	1.4	1.3	2.5	2.1	1.8	1.6	1.4	1.3
180x65 GL10	2.7	2.4	2.1	2.0	1.9	1.7	3.3	2.7	2.3	2.0	1.8	1.6
240x65 GL10	3.6	3.2	2.9	2.7	2.5	2.3	4.3	3.4	2.9	2.6	2.4	2.2
290x65 GL10	4.1	3.8	3.5	3.2	3.0	2.8	4.8*	4.1	3.5	3.1	2.9	2.6
320x65 GL10	4.5	4.0	3.8	3.6	3.3	2.9	4.8*	4.5	3.9	3.4	3.1	2.9
360x65 GL10	4.9	4.4	4.1	3.9	3.5	3.2	4.9*	4.8*	4.3	3.8	3.5	3.2

Notes:

- Provide minimum 35mm bearing at end supports and 70mm bearing on internal supports.
- Ensure length suitability for continuous span members.
- Values with an asterisk have been limited by single span or length availability.

ROOF RAFTERS (N3 WIND CLASSIFICATION)
TABLE 3

Table 3a - Common Rafters						
	Maximum Rafter Spacing (mm)					
meyPINE3	Roof Mass (kg/m²)	600	900	600	900	900
		Maximum Single Span (m)		Maximum Continuous Span (m)		Maximum Overhang (mm)
90x42 F7	10	2.0	1.9	2.3	2.1	500
	20	2.0	1.9	2.2	2.1	
	40	1.9	1.8	2.2	2.1	
	90	1.6	1.4	2.0	1.8	
138x42 F7	10	3.9	3.4	4.2	3.7	700
	20	3.7	3.2	4.0	3.5	
	40	3.2	2.8	3.7	3.4	
	90	2.5	2.2	3.1	2.8	
185x42 F7	10	5.1	4.4	5.1*	4.8*	900
	20	4.7	4.1	4.8*	4.8	
	40	4.2	3.8	4.8*	4.6	
	90	3.3	2.9	4.0	3.7	
230x42 F7	10	6.2	5.5	6.2*	5.5*	1100
	20	5.7	5.1	5.7*	5.1*	
	40	5.3	4.7	5.3*	4.8*	
	90	4.2	3.6	4.8*	4.5	
280x42 F7	10	7.0	6.4	7.0*	6.4*	1400
	20	6.5	5.9	6.5*	5.9*	
	40	6.2	5.4	6.2*	5.4*	
	90	5.0	4.4	5.0*	4.8*	

Table 3b - Hip/Valley Rafters (Supporting common rafters only)						
	Roof Mass (kg/m²)					
meyPINE3	20	40	90	20	40	90
	Maximum Single Span (m)			Maximum Continuous Span (m)		
90x42 F7	1.8	1.7	1.6	2.2	2.2	2.0
138x42 F7	3.1	2.8	2.3	3.4	3.2	2.8
185x42 F7	3.8	3.4	2.8	4.1	3.9	3.4
230x42 F7	4.3	4.0	3.3	4.3	4.3	3.9
280x42 F7	4.7	4.5	3.9	4.8*	4.7	4.3

Notes:

- Span of rafters is taken as raking length between supports (not plan length).
- Ensure length suitability for continuous span members.
- Maximum span in tables above is limited to 7.2m based on length availability.
- Values with an asterisk have been limited by single span or length availability.

ROOF BEAMS
TABLE 4

Table 4 - Roof Beams (Ridge beams & intermediate beams)									
	Roof Load Width (m)								
meyPINE3	Roof Mass (kg/m²)	2.4	3.0	3.6	4.2	2.4	3.0	3.6	4.2
		Maximum Single Span (m)				Maximum Continuous Span (m)			
140x65 GL10	20	2.9	2.6	2.4	2.3	3.1	2.8	2.5	2.3
	40	2.6	2.3	2.2	2.0	2.9	2.6	2.4	2.2
	90	2.0	1.8	1.7	1.6	2.5	2.1	1.9	1.7
180x65 GL10	20	3.6	3.4	3.1	3.0	4.0	3.6	3.2	3.0
	40	3.2	3.0	2.8	2.6	3.7	3.3	3.0	2.8
	90	2.5	2.3	2.2	2.1	3.0	2.7	2.4	2.2
240x65 GL10	20	4.5	4.3	4.1	3.9	4.8*	4.7	4.3	4.0
	40	4.3	4.0	3.7	3.5	4.8*	4.4	4.0	3.7
	90	3.4	3.1	2.9	2.8	4.0	3.6	3.3	3.0
290x65 GL10	20	5.2	5.0	4.9	4.6	5.2*	5.0*	4.9*	4.8
	40	5.0	4.8	4.5	4.2	5.0*	4.8*	4.8*	4.5
	90	4.1	3.8	3.6	3.4	4.8	4.3	3.9	3.6
320x65 GL10	20	5.8	5.5	5.4	5.1	5.8*	5.5*	5.4*	5.1*
	40	5.5	5.3	4.9	4.7	5.5*	5.3*	4.9*	4.8*
	90	4.5	4.2	3.9	3.7	4.8*	4.8	4.3	4.0
360x65 GL10	20	6.4	6.0	5.9	5.5	6.4*	6.0*	5.9*	5.5*
	40	5.9	5.6	5.4	5.1	5.9*	5.6*	5.4*	5.1*
	90	5.1	4.7	4.3	4.2	5.1*	4.8*	4.8*	44*

Notes:

- Provide minimum 35mm bearing at end supports and 70mm bearing on internal supports.
- Ensure length suitability for continuous span members.
- Maximum span in tables above is limited to 7.2m based on length availability.
- Values with an asterisk have been limited by single span or length availability.

VERANDAH BEAMS
TABLE 5

Table 5 - Verandah Beams									
	Roof Load Width (m)								
meyPINE3	Roof Mass (kg/m^2)	0.9	1.5	2.1	2.7	0.9	1.5	2.1	2.7
		Maximum Single Span (m)				Maximum Continuous Span (m)			
140x65 GL10	20	3.5	3.1	2.7	2.5	4.3	3.2	2.7	2.5
	40	3.1	2.7	2.5	2.3	4.2	3.2	2.7	2.5
	90	2.5	2.1	1.8	1.7	3.3	2.8	2.4	2.1
180x65 GL10	20	4.3	3.8	3.4	3.1	4.8*	4.1	3.4	3.0
	40	4.0	3.4	3.0	2.8	4.8*	4.1	3.4	3.0
	90	3.2	2.7	2.4	2.2	4.2	3.6	3.0	2.7
240x65 GL10	20	5.4	4.8	4.3	3.9	5.4*	4.8*	4.8	4.1
	40	4.9	4.4	4.0	3.7	4.9*	4.8*	4.8	4.1
	90	4.1	3.6	3.2	2.9	4.8*	4.6	4.1	3.6
290x65 GL10	20	6.1	5.4	5.0	4.7	6.1*	5.4*	5.0*	4.8*
	40	5.6	5.0	4.7	4.4	5.6*	5.0*	4.8*	4.8*
	90	4.7	4.2	3.9	3.6	4.8*	4.8*	4.8*	4.3
320x65 GL10	20	6.7	5.9	5.4	5.1	6.7*	5.9*	5.4*	5.1*
	40	6.0	5.4	5.0	4.7	6.0*	5.4*	5.0*	4.8*
	90	5.1	4.5	4.2	3.9	5.1*	4.8*	4.8*	4.8
360x65 GL10	20	7.2	6.4	5.9	5.5	7.2*	6.4*	5.9*	5.5*
	40	6.5	5.8	5.4	5.1	6.5*	5.8*	5.4*	5.1*
	90	5.6	5.0	4.6	4.3	5.6*	5.0*	4.8*	4.8*

Notes:

- Provide minimum 35mm bearing at end supports and 70mm bearing on internal supports.
- Ensure length suitability for continuous span members.
- Maximum span in tables above is limited to 7.2m based on length availability.
- Values with an asterisk have been limited by single span or length availability.

POSTS
TABLE 6

Table 6a - Posts (Supporting roof only)										
Unsupported Post Height (m)										
meyPINE3	2.4	2.7	3.0	3.6	4.2	2.4	2.7	3.0	3.6	4.2
	Maximum Sheet Roof Area (m^2) 40kg/m^2					Maximum Tile Roof Area (m^2) 90kg/m^2				
88x88 GL8	22	19	15	10	8	18	14	12	8	6
112x112 GL8	25	25	25	25	20	25	25	25	21	15
135x135 GL8	25	25	25	25	25	25	25	25	25	25
185x185 GL8	25	25	25	25	25	25	25	25	25	25

Table 6b - Posts (Supporting roof and up to 5m^2 floor)										
Unsupported Post Height (m)										
meyPINE3	2.4	2.7	3.0	3.6	4.2	2.4	2.7	3.0	3.6	4.2
	Maximum Sheet Roof Area (m^2) 40kg/m^2					Maximum Tile Roof Area (m^2) 90kg/m^2				
88x88 GL8	21	16	12	6	-	14	10	7	2	-
112x112 GL8	25	25	25	25	18	25	25	25	18	12
135x135 GL8	25	25	25	25	25	25	25	25	25	25
185x185 GL8	25	25	25	25	25	25	25	25	25	25

Table 6c - Posts (Supporting roof and up to 10m^2 floor)										
Unsupported Post Height (m)										
meyPINE3	2.4	2.7	3.0	3.6	4.2	2.4	2.7	3.0	3.6	4.2
	Maximum Sheet Roof Area (m^2) 40kg/m^2					Maximum Tile Roof Area (m^2) 90kg/m^2				
88x88 GL8	18	6	-	-	-	8	2	-	-	-
112x112 GL8	25	25	25	22	9	25	25	21	12	4
135x135 GL8	25	25	25	25	25	25	25	25	25	25
185x185 GL8	25	25	25	25	25	25	25	25	25	25

Notes:

- Unsupported post height is distance between points of attachment to roof and/or floor members.
- All values above do not include wall loads.
- Maximum Roof Area in tables above is limited to 25m^2.

ROOF BATTENS
TABLE 7

Table 7 - Roof Battens (Supporting sheet roof only)			
Roof Batten Spacing (mm)			
meyPINE3	600	900	1200
	Maximum Continuous Span (mm)		
90x42 F7	1200	1200	1050

Notes:
- Roof battens designed to be continuous over minimum 2 spans.
- Maximum Span is limited to 1200mm.

Recommended painting specification and on-site storage & handling for Pre-Primed H3 Treated Timber

ON SITE STORAGE & HANDLING

On site storage should be on timber gluts with at least 150mm clearance from the ground in a dry, well-ventilated area. It is recommended to leave the plastic wrapping from the pack in place, however the pack must be protected from direct sunlight to avoid sweating under the plastic. If the meyPINE3 products are delivered without wrapping or with damaged wrapping, cover it with plastic, sheet material or building paper that is firmly held in place to keep the product clean and dry from the elements. Care must be taken to ensure that the protection of the product doesn't unintentionally collect pools of water that can soak into the timber. Other building products should not be stored on top of meyPINE3 products.

PRIOR TO INSTALLATION

- Ensure that all dirt, dust or any contaminants are cleaned from the surface of the board.
- Any bare timber areas exposed through cutting or notching must be retreated with an approved treatment re-sealer prior to priming with a quality primer.
- Sand any uneven surfaces for a premium finish.
- meyPINE3 products are generally supplied to the site with a moisture content of approximately 12% (+/- 2%). At the time of installation, the meyPINE3 product must have a moisture content close to the local expected average moisture content. For sites where the moisture content is significantly different, some acclimatisation will be required prior to installation.
- meyPINE3 primer only forms part of the final painting system, it is not weatherproof paint. Do not leave exposed to weather for an extended period.
- Prior to painting, make sure that the surface of the primer is not chalky and that the primer adhesion is good. The 'X' test can be used to check this. Use a sharp blade to cut an X into the existing paint coatings. Then place a piece of sticky tape over the X and press down firmly. Quickly peel the tape off the surface. Repeat the process in different areas to check the entire surface. If flakes of paint are stuck to the sticky tape, or have flaked away from the test surface, the current coating should not be painted over. The primer should be removed by sanding or stripping the surface back and treating the area as a new, unpainted surface. If there is no paint on the tape, and no paint has flaked from the test areas, your surface can be repainted.

It is recommended that at least one coat (preferably two) of a premium exterior grade topcoat paint colour matched to the final finishing coat is applied all around the board prior to fixing. By doing so, this will significantly reduce the moisture loss or uptake from all surfaces of the boards.

JOINT SEALING

All joints irrespective of the finish should be re-sealed, including stopped ends, with a mastic or silicone sealant that is compatible with the intended paint finish. The sealant should be placed onto the ends of the boards before pushing the ends together. Any excess sealant should be removed from the faces of the boards as soon as the boards are fixed.

TOPCOATS

It is recommended that at least two topcoats of premium paint be applied in accordance with the paint manufacturer's recommendations after fixing. The minimum paint film requirements can be found on the tin.

MAINTENANCE

The long-term performance of meyPINE3 products is dependent on regular and effective maintenance. The frequency of maintenance will depend on the type of paint used and the level of exposure to the weather and other elements. Before re-coating, the meyPINE3 product should be cleaned and the joints resealed where required. Any re-coating should be carried out in accordance with the paint manufacturer's recommendations.

DISPOSAL OF WASTE AND OFFCUTS

Do not burn off cuts or sawdust from any preservative treated timber. Such offcuts and sawdust should be disposed of by approved local authority methods.

WARRANTY

To maintain the limited guarantee offered by preservative suppliers, details pertaining to the products used on the project must be kept. For example: end tags and proof of purchase. meyPINE3 preservative guarantees require every cut, rebate or hole to have a preservative sealer applied and re-primed with a quality primer. This limited guarantee covers the use of meyPINE3 products against fungal decay, termite attack and insect borers only.

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