

BearingPlate

TOP PLATE PROTECTION

The MiTek BearingPlate has been developed to improve the crushing resistance of wall plates under heavily loaded trusses.



For durability information, please refer to **Corrosion Resistance of MiTek Metal Connectors**, available on the MiTek website at mitek.com.au

USES

- BearingPlates can be used wherever there is a heavily loaded truss or beam on a wall plate to improve bearing capacity. The thick steel plate spreads the load over a larger area and reduces the tendency to crush.
- Ideal for wall plates supporting girder trusses and heavy beams.

ADVANTAGES

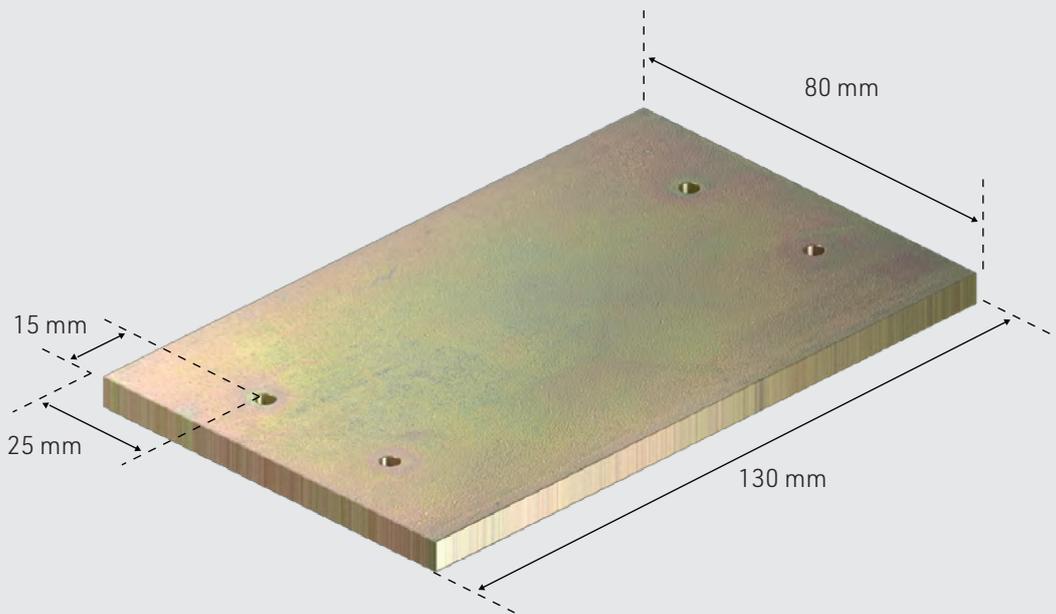
- BearingPlates improve the crushing resistance of wall plates.
- Simple to install and may be fitted before or after truss is positioned. Only 4 nails are required for fixing.
- One size may be used for either 70mm or 90mm wall framing, and with either single or double trusses.



This Certified Engineering Building Product complies with the National Construction Code and Australian Standards.

SPECIFICATIONS

Steel Grade	G2
Thickness (Total Coated)	6.0 mm
Coating	Electro-galvanized
Nails	MiTek 30 x 2.8mm hot dip galvanised reinforced head
Product Code	BP80



- Values in this table incorporate the capacity factor (ϕ) for houses. For different building applications, multiply the design capacities by the following factors. Refer to AS1720.1 for a full definition of each category and building application.

Category	1	2	3
Adjustment factor	1.00	0.78	0.8867

- Where the strength group of truss and wall plate differ, base design capacity on the weaker strength group of either member.
- The capacities listed are for Dead Load cases ($k_1 = 0.57$) that typically governs these situations. If a check needs to be made on the Dead + Roof LL capacity ($k_1 = 0.94$), multiply the capacities in Table 1 by 1.65.
- The BearingPlate has been designed to increase the bearing capacity of both the truss and wall plates. Alternatively, using timber of higher strength group in both the truss and wall plates can also increase the bearing capacity at the support. The capacity in this case can be determined from the column headed 'Without BearingPlate'.
- For further information on Timber Strength groups, refer to M2UG-0014-Classification of Timber.
- The capacities listed in Table 1 assume that the truss is supported across the full width of the wall. In situations where this is not so, the bearing capacity tabulated is reduced in proportion to the actual bearing width.
- The bearing capacities also assume that the top plate is supported by the minimum prop stud width listed in Table 1.

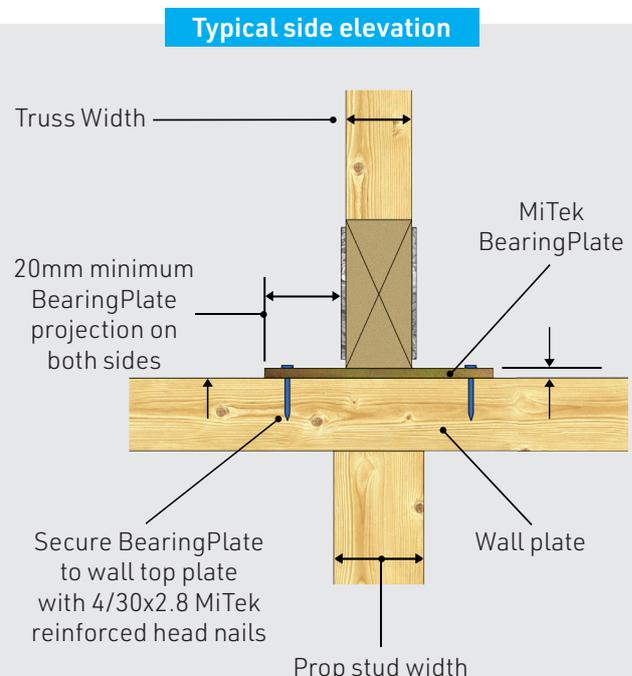
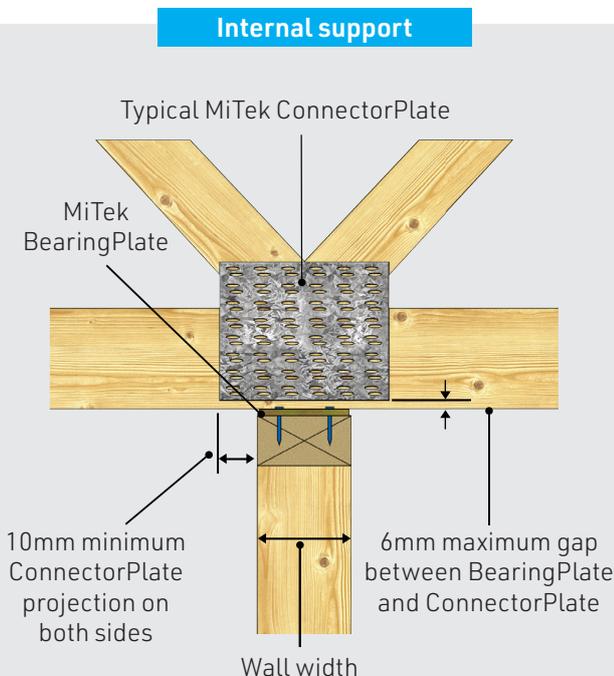
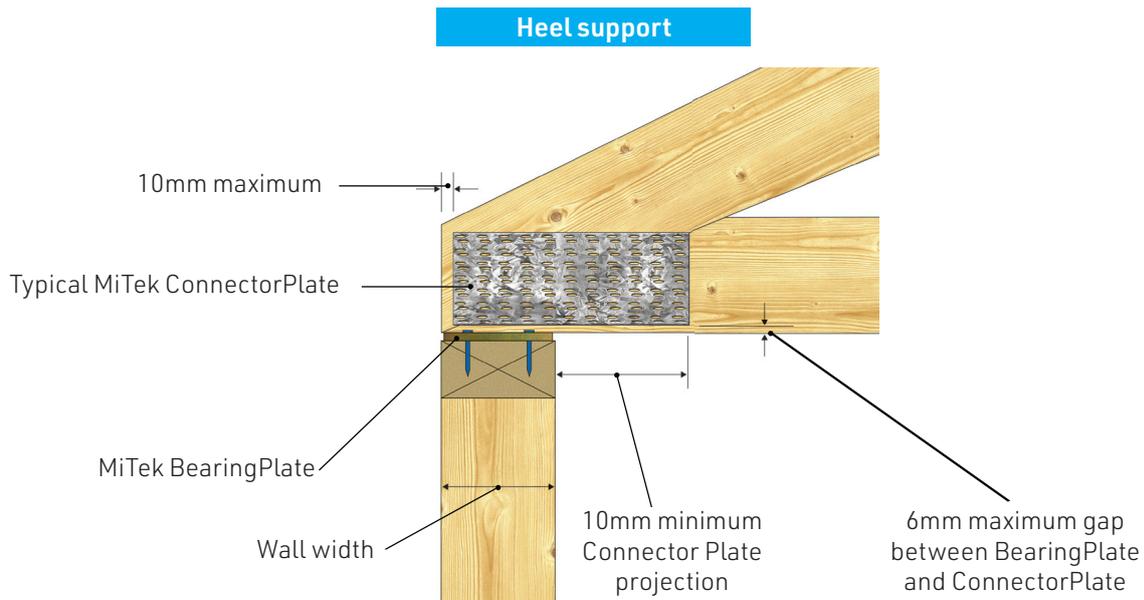
LOAD DATA

Limit State Design Bearing Capacity (kN)				
Wall Width (mm)	Truss Width (mm)	Without BearingPlate ⁽³⁾ DL only	With BearingPlate ⁽³⁾ DL only	Minimum Prop Stud Width ⁽⁷⁾ (mm)
Timber Strength Groups SD8, S5 (e.g. unseasoned Cypress Pine, unseasoned Douglas Fir)				
70	35	8.6	12.8	2/35
	45	11.1	15.3	2/35
	2/35	17.2	25.7	3/35
	2/45	22.1	30.6	3/45
90	35	9.8	14.7	2/35
	45	12.6	17.5	2/35
	2/35	19.7	29.3	3/35
	2/45	25.3	35.0	3/45
Timber Strength Group SD7, S4 (e.g. seasoned Baltic Pine & other imported softwoods)				
70	35	10.8	16.2	2/35
	45	13.9	19.3	2/35
	2/35	21.7	32.3	3/35
	2/45	27.9	38.5	3/45
90	35	12.4	18.5	2/35
	45	15.9	22.0	2/35
	2/35	24.8	37.0	3/35
	2/45	31.8	44.0	3/45
Timber Strength Group SD6, S3 (e.g. seasoned Radiata Pine & other mixed Australian grown pine)				
70	35	13.4	20.0	2/35
	45	17.2	23.8	2/35
	2/35	26.8	40.0	3/35
	2/45	34.5	47.7	3/45
90	35	15.3	22.9	2/35
	45	19.7	27.2	2/35
	2/35	30.6	45.7	3/35
	2/45	39.4	54.5	3/45
Timber Strength Group SD4, S1 (e.g. seasoned Victorian Ash & other mixed Australian hardwood)				
70	35	22.3	33.3	2/35
	45	28.7	39.7	2/35
	2/35	44.7	66.7	3/35
	2/45	57.5	79.5	3/45
90	35	25.5	38.1	2/35
	45	32.8	45.4	2/35
	2/35	51.1	76.2	3/35
	2/45	65.7	90.8	3/45

Design capacities have been obtained from laboratory testing and procedures given in AS1720.1.

INSTALLATION

1. Position the MiTek BearingPlate centrally along the top of the wall plate and such that it projects at least 20mm on either side of the supported truss. Fix with four 30 x 2.8mm MiTek reinforced head nails. The bottom chord of the truss is to be reinforced with a MiTek ConnectorPlate located not more than 6mm above the BearingPlate, and projects at least 10mm beyond the BearingPlate, as illustrated.
2. In addition to the BearingPlate, a tie down connection is required to resist uplift. This connection should not be less than two MiTek Trip-L-Grips.



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