

### Technical Update 17.2

### August 2018\_

# WESBATTENS

#### 35 x 90 and 45 x 90 ROOF AND TIE-DOWN BATTENS for sheet roofs

The WESPINE WESBATTENS are designed to support sheet roofing at spans of up to and including 1200mm – see Table 1. They are also suitable for use as tie-down battens for N1, N2 and N3 wind classifications as shown in Figure 1 and Tables 2 and 3.

The WESPINE WESBATTEN span tables are engineer designed and certified to AS 1720.1 *Timber structures Part 1: Design methods,* AS/NZS 1170 *Structural design actions,* and AS 4055 *Wind loads for housing.* The span tables are compatible with those in AS 1684.2 Supplements.

## Roof Battens Supporting Sheet Roofing Only (Table 1)

Batten spans

WESBATTEN Size		Max.	Batten Spacing						
	Wind class	Roof	600 900		120	00			
		Mass (kg/m)	Batten Span (mm)						
			Span	O/H	Span	O/H	Span	O/H	
35 x 90	N1	10	1200	300	1100	300	1100	300	
35 x 90	N2	10	1200	300	1100	300	1100	300	
35 x 90	N3	10	1200	300	1100	300	1000	300	
35 x 90	N4	10	1100	300	900	300	800	300	
45 x 90	N1	10	1200	300	1200	300	1200	300	
45 x 90	N2	10	1200	300	1200	300	1200	300	
45 x 90	N3	10	1200	300	1200	300	1200	300	
45 x 90	N4	10	1200	300	1200	300	1000	300	

NOTES:

1. Battens are not suitable for the support of construction loads prior to fixing of the roof cladding.

2. Bearing lengths at end and internal supports for continuous members shall be not less than 35mm.

3. Maximum overhang = 50% of back-span.

- 4. Batten fixings for 35 x 90 battens shall comply with the tie-down requirements specified in AS 1684.2.
- 5. 100 mm long Type 17 screws are recommended for fixing 45 x 90 battens.

6. Custom orb profile roofing should be used with batten spacing of 900 mm or less in edge areas.

- 7. Edge connections are all connections on the two battens closest to the ridge, eaves line and the two batten-torafter connections closest to the hips. All other connections are General connections
- 8. WESBATTEN 35x90 invoiced after 21/11/2017 is fully compliant with N2 tie-down specification.
- 9. WESBATTEN 35x90 invoiced before 21/11/2017 should not be used as tie-down battens.

10. WESBATTEN 45x90 invoiced after 1/7/2018 is fully compliant with N3 tie-down specification.

11. WESBATTEN 45x90 invoiced before 1/7/2018 should not be used as N3 tie-down battens.

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#### **Tie-down battens**

Tie-down battens are battens over the top of the external wall cavity to which masonry tie-down straps are fixed.



Figure 1 Tie-down straps over tie-down battens

NOTE: The tie-down strap should be vertical and taut, and can be fixed anywhere along the tie-down batten.

# **Tie-down Battens (Table 2)**

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Uplift	Load	width	(UL)	N)

WESBATTEN Size		Max.	Rafter Spacing						
	Wind class	Roof Mass (kg/m)	of 600		900		1200		
			Tie-down spacing (mm)						
			900	1200	900	1200	900	1200	
35 x 90	N1	10	7500	7500	7200	5500	5800	4000	
35 x 90	N2	10	5600	4200	4000	3100	3200	2200	
45 x 90	N1	10	7500	7500	7500	7500	7500	6700	
45 x 90	N2	10	7500	6900	6700	5100	5300	3700	
45 x 90	N3	10	4800	3600	3500	2600	2800	1900	

NOTE:

1.

RLW calculation assumes that roofing is not fastened to the tie-down batten. If not using truss roof construction refer to AS 1684 Clause 9.6.3 for details on using only perimeter tie-downs. 2.

#### **Tie-down Battens attached to Sheet Roofing (Table 3)** Unlift Load width (ULW)

WESBATTEN Size	Wind class	Max.	Rafter Spacing						
		Roof	600		900		1200		
		Mass	Tie-down spacing (mm)				ı)		
		(kg/m)	900	1200	900	1200	900	1200	
35 x 90	N1	10	7500	7500	7500	7000	7500	6500	
35 x 90	N2	10	6700	5000	6100	4100	5200	4100	
45 x 90	N1	10	7500	7500	7500	7500	7500	7500	
45 x 90	N2	10	7500	7500	7500	6100	7500	5600	
45 x 90	N3	10	5600	4200	5000	3400	4400	3400	

NOTE:

RLW calculation assumes that roofing is fastened to the tie-down batten. 1.

2. If not using truss roof construction refer to AS 1684 Clause 9.6.3 for details on using only perimeter tie-downs.

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