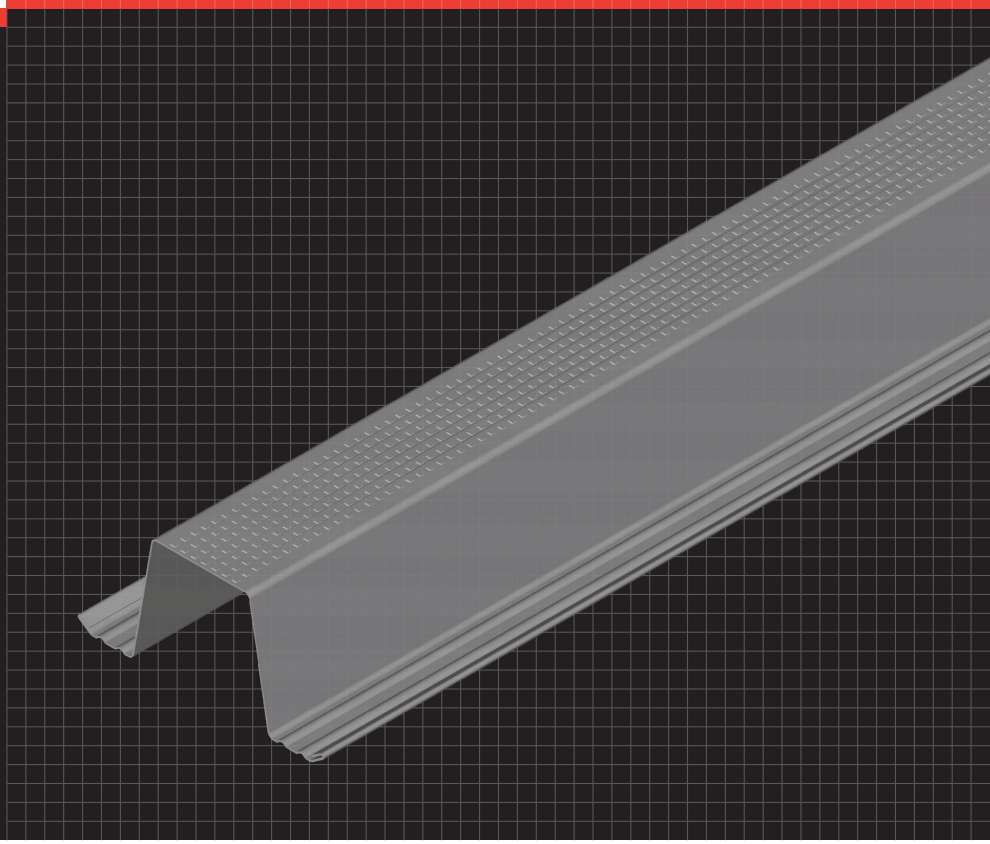
Stramit
CONSIDER IT DONE

# TECHNICAL SUPPLEMENT

## *NEW Stramit Roof Batten*



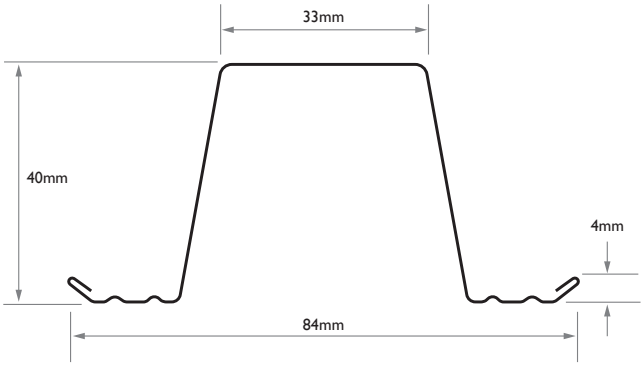
**SUPPLEMENT FOR ROOF BATTEN**

**FOR USE IN NON-CYCLONIC AREAS**

## Introduction

Stramit has a new range of economical 40mm high roof battens for use in non-cyclonic areas. The batten incorporates a safety edge and is made of 0.55mm or 0.48mm (Victoria only) BMT G550 steel with AM150/AZ150 coating in accordance with AS1397 - 2011.

The roof battens have been developed specifically for domestic applications but may also be used in small commercial structures. The information in this brochure should be read in conjunction with the Stramit® Tophat and Batten Product Technical Manual.




## Features

- High tensile steel – for high strength and low weight
- Quality products – with Stramit's proven record for manufacture and supply
- Limit-state design data – for fully conforming designs
- Fully tested – for technical confidence
- Rolled safety edges – to enhance user confidence
- Knurled anti-slip top surface – for easier fastening

## Adverse Conditions

Stramit® battens will give excellent durability in most applications. In exposed conditions, unwashed areas subject to salt laden air or other corrosive matter may need additional protection. These battens are not recommended for use in enclosed areas within 450mm of moist soil.

## Design Data

Stramit recommends that all designs conform to relevant Australian Standards such as AS1170 series or AS4055, and the NASH Standard Residential and Low-Rise Steel Framing.

All loadings used in deriving the design data are assumed to act uniformly along the top central flange of the batten. At connections to support members, both feet of the batten must be fixed with relevant screws given in the Tables. Foot traffic performance has been derived based on the NASH Standard.

Where the batten is lapped at the ends, remember to allow for an additional 25mm of material beyond the screw line on each side of the support, a total lap of 50mm minimum.

## Steps for Design and Selection

The Tables give information on the use of the 0.48mm and 0.55mm BMT roof battens in residential applications. To use the Tables, follow the steps:

**Step 1**

Note the slope of the roof. If the roof slope is greater than 10 degrees, corner pressures can be neglected and the edge pressures chosen for the corners. The ridge will have edge pressures. Where the slope is no more than 10 degrees, the corner areas of roof must also be considered, but there is no edge pressure at the ridge.

See diagram below Tables to determine wind pressure areas.

**Step 2**

Determine the Wind Class ranging from N1 to N6 from AS4055. This brochure does not give values for N6, as these battens are not suitable for use in this area, please contact your local Stramit Office for advice.

**Step 3**

The truss material and spacing should be known. A choice can be made of suitable roof sheeting and thickness if this is not already available.

**Step 4**

In the Table for the particular batten, from the left columns marked Batten Limitations, choose the particular column for the type of truss material and fasteners, and spacing of trusses. Move down the rows until you get to the wind class for the building, and note down the 5 numbers for various roof areas.

**Step 5**

In the same Table, move to the right columns marked Sheeting Limitations, and choose the column for the roof sheeting, thickness and fastener configuration. Again move down the rows until you get to the wind class, and note down the 5 numbers for the various areas.

**Step 6**

For each area of the roof, the value for the batten spacing is the lesser of the values found in steps 4 and 5.

Examples are given below the Tables.

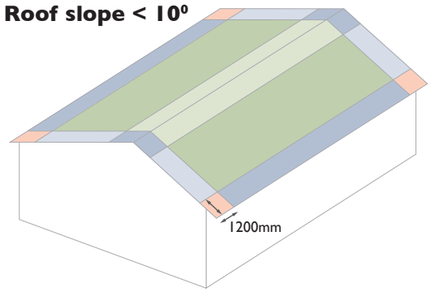
SUPPLEMENT FOR ROOF BATTEN

# STRAMIT® 0.48 ROOF BATTEN MAXIMUM BATTEN SPACING (mm)

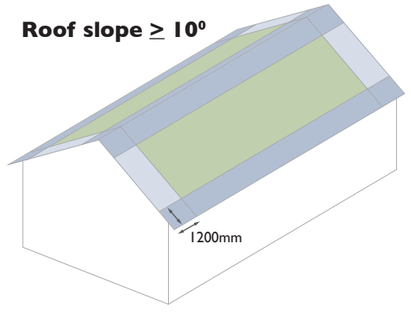
| Wind class | Location | Span type | Strength wind pressure (kPa) | Batten limitations | | | | | | Sheeting limitations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Truss spacing (mm), fastening and truss material | | | | | | Stramit sheeting, thickness bmt and Buildex® M6 -11x50mm RoofZip® fasteners per sheet per batten | | | | | | | | | |
| | | | | 2 No 12-14x20 screws into Timber or 1.5mm thick G450 steel | | | 2 No 10-16x16mm screws into 1mm thick G550 steel | | | Corrugated | | | | Monoclad® | | Longspan® | | | |
| | | | | | | | | | | 0.42 | | 0.48 | | 0.42 | 0.48 | 0.42 | | 0.48 | |
| | | | | 450 | 600 | 900 | 450 | 600 | 900 | 3 scr | 5 scr | 3 scr | 5 scr | 4 scr | 4 scr | 3 scr | 5 scr | 3 scr | 5 scr |
| N1 | Internal | End | 0.69 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2250 | 2250 |
| | Internal | Internal | 0.69 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2700 | 2700 |
| | Edge | End | 1.25 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 1950 | 2250 |
| | Edge | Internal | 1.25 | 2700 | 2700 | 2700 | 2700 | 2700 | 2300 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2100 | 2630 |
| | Corner | End | 1.81 | 2250 | 2250 | 2250 | 2250 | 2250 | 1590 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1350 | 1680 | 1350 | 1680 |
| N2 | Internal | End | 0.95 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2250 | 2250 |
| | Internal | Internal | 0.95 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2700 | 2700 |
| | Edge | End | 1.73 | 2250 | 2250 | 2250 | 2250 | 2250 | 1660 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1410 | 1750 | 1410 | 1760 |
| | Edge | Internal | 1.73 | 2700 | 2700 | 2390 | 2700 | 2490 | 1660 | 1200 | 1200 | 1430 | 1600 | 1700 | 1990 | 1520 | 1900 | 1520 | 1900 |
| | Corner | End | 2.51 | 2250 | 2250 | 1640 | 2250 | 1720 | 1140 | 900 | 900 | 910 | 1200 | 1270 | 1270 | 970 | 1210 | 970 | 1210 |
| N3 | Internal | End | 1.49 | 2250 | 2250 | 2250 | 2250 | 2250 | 1930 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1640 | 1750 | 1640 | 2050 |
| | Internal | Internal | 1.49 | 2700 | 2700 | 2700 | 2700 | 2700 | 1930 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 1760 | 2100 | 1760 | 2210 |
| | Edge | End | 2.7 | 2250 | 2210 | 1530 | 2130 | 1590 | 1060 | 850 | 900 | 850 | 1200 | 1180 | 1180 | 900 | 1130 | 900 | 1130 |
| | Edge | Internal | 2.7 | 2700 | 2210 | 1530 | 2130 | 1590 | 1060 | 910 | 1200 | 910 | 1600 | 1280 | 1280 | 970 | 1220 | 970 | 1220 |
| | Corner | End | 3.92 | 2050 | 1520 | 1050 | 1460 | 1100 | 730 | 580 | 900 | 580 | 1020 | 810 | 810 | 620 | 770 | 620 | 770 |
| N4 | Internal | End | 2.21 | 2250 | 2250 | 1870 | 2250 | 1950 | 1300 | 900 | 900 | 1030 | 1200 | 1350 | 1450 | 1100 | 1380 | 1100 | 1380 |
| | Internal | Internal | 2.21 | 2700 | 2700 | 1870 | 2600 | 1950 | 1300 | 1120 | 1200 | 1120 | 1600 | 1560 | 1560 | 1190 | 1490 | 1190 | 1490 |
| | Edge | End | 4.02 | 1990 | 1490 | 1020 | 1430 | 1070 | 710 | 570 | 900 | 570 | 990 | 790 | 790 | 600 | 750 | 600 | 750 |
| | Edge | Internal | 4.02 | 1990 | 1490 | 1020 | 1430 | 1070 | 710 | 610 | 1070 | 610 | 1070 | 860 | 860 | 650 | 810 | 650 | 810 |
| | Corner | End | 5.83 | 1370 | 1020 | 710 | 980 | 740 | 490 | 390 | 680 | 390 | 680 | 550 | 550 | 410 | 520 | 410 | 520 |
| N5 | Internal | End | 3.25 | 2250 | 1840 | 1270 | 1770 | 1320 | 880 | 700 | 900 | 700 | 1200 | 980 | 980 | 750 | 930 | 750 | 930 |
| | Internal | Internal | 3.25 | 2470 | 1840 | 1270 | 1770 | 1320 | 880 | 760 | 1200 | 760 | 1330 | 1060 | 1060 | 810 | 1010 | 810 | 1010 |
| | Edge | End | 5.91 | 1360 | 1010 | 700 | 970 | 730 | 480 | 380 | 680 | 380 | 680 | 540 | 540 | 410 | 510 | 410 | 510 |
| | Edge | Internal | 5.91 | 1360 | 1010 | 700 | 970 | 730 | 480 | 410 | 730 | 410 | 730 | 580 | 580 | 440 | 550 | 440 | 550 |
| | Corner | End | 8.58 | 930 | 690 | 480 | 670 | 500 | 330 | 260 | 460 | 260 | 460 | - | - | - | 350 | - | 350 |

Internal pressure where slope < 10 degrees, cladding end span
Internal pressure, cladding internal span
Edge pressure, cladding end span
Edge pressure, cladding internal span
Corner pressure where slope < 10 degrees, cladding end span

**Roof slope < 10⁰**




**Roof slope ≥ 10⁰**

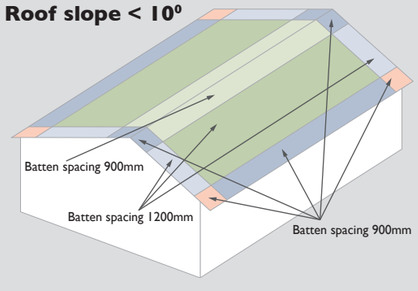




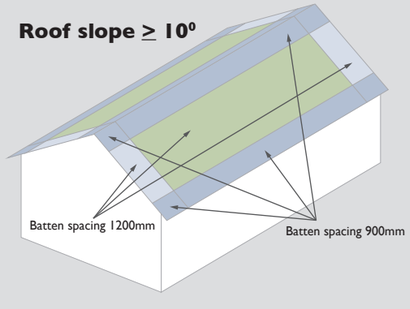

**Example:**
0.48mm BMT Stramit batten, 1.0mm G550 steel trusses at 600mm centres, Corrugated 0.42mm sheeting with 5 fasteners/ sheet, N3 wind class

| BATTEN SPACING | | |
|---|---|---|
| Batten Limit | Sheeting Limit | Final |
| 2250 | 900 | 900 |
| 2700 | 1200 | 1200 |
| 1590 | 900 | 900 |
| 1590 | 1200 | 1200 |
| 1100 | 900 | 900 |

**Roof slope < 10⁰**




**Roof slope ≥ 10⁰**



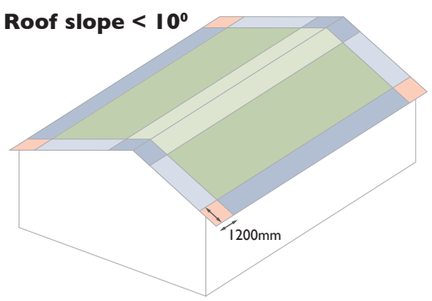
SUPPLEMENT FOR ROOF BATTEN

## STRAMIT® 0.55 ROOF BATTEN MAXIMUM BATTEN SPACING (mm)

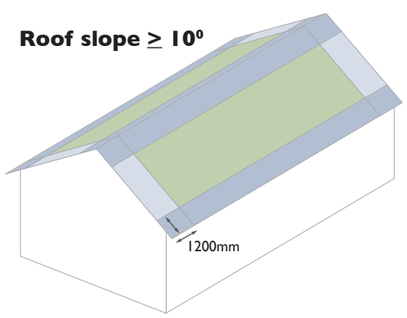
| Wind class | Location | Span type | Strength wind pressure (kPa) | Batten limitations | | | | | | | | Sheeting limitations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Truss spacing (mm), fastening and truss material | | | | | | | | Stramit sheeting, thickness bmt and Buildex® M6 -11x50mm RoofZip® fasteners per sheet per batten | | | | | | | | | |
| | | | | 2 No 12-14x20 screws into Timber or 1.5mm thick G450 steel | | | | 2 No 10-16x16mm screws into 1mm thick G550 steel | | | | Corrugated | | | | Monoclad® | | Longspan® | | | |
| | | | | | | | | | | | | 0.42 | | 0.48 | | 0.42 | 0.48 | 0.42 | | 0.48 | |
| | | | | 450 | 600 | 900 | 1200 | 450 | 600 | 900 | 1200 | 3 scr | 5 scr | 3 scr | 5 scr | 4 scr | 4 scr | 3 scr | 5 scr | 3 scr | 5 scr |
| N1 | Internal | End | 0.69 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2250 | 2250 |
| | Internal | Internal | 0.69 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2700 | 2700 |
| | Edge | End | 1.25 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 1840 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2250 | 2250 |
| | Edge | Internal | 1.25 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2460 | 1840 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2700 | 2700 |
| | Corner | End | 1.81 | 2250 | 2250 | 2250 | 2040 | 2250 | 2250 | 1700 | 1270 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2090 | 2250 |
| N2 | Internal | End | 0.95 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2250 | 2250 |
| | Internal | Internal | 0.95 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2430 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2700 | 2700 |
| | Edge | End | 1.73 | 2250 | 2250 | 2250 | 2130 | 2250 | 2250 | 1780 | 1330 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2180 | 2250 |
| | Edge | Internal | 1.73 | 2700 | 2700 | 2490 | 2130 | 2700 | 2670 | 1780 | 1330 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2350 | 2700 |
| | Corner | End | 2.51 | 2250 | 2250 | 1710 | 1470 | 2250 | 1840 | 1220 | 920 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1500 | 1750 | 1500 | 1880 |
| N3 | Internal | End | 1.49 | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 | 2060 | 1550 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1750 | 1750 | 2250 | 2250 |
| | Internal | Internal | 1.49 | 2700 | 2700 | 2700 | 2480 | 2700 | 2700 | 2060 | 1550 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 2100 | 2100 | 2700 | 2700 |
| | Edge | End | 2.7 | 2250 | 2250 | 1590 | 1360 | 2250 | 1710 | 1140 | 850 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1400 | 1750 | 1400 | 1750 |
| | Edge | Internal | 2.7 | 2700 | 2370 | 1590 | 1360 | 2280 | 1710 | 1140 | 850 | 1200 | 1200 | 1420 | 1600 | 1700 | 1980 | 1510 | 1890 | 1510 | 1890 |
| | Corner | End | 3.92 | 2040 | 1630 | 1100 | 940 | 1570 | 1170 | 780 | 580 | 900 | 900 | 900 | 1200 | 1260 | 1260 | 960 | 1200 | 960 | 1200 |
| N4 | Internal | End | 2.21 | 2250 | 2250 | 1950 | 1670 | 2250 | 2090 | 1390 | 1040 | 900 | 900 | 1200 | 1200 | 1350 | 1700 | 1710 | 1750 | 1710 | 2140 |
| | Internal | Internal | 2.21 | 2700 | 2700 | 1950 | 1670 | 2700 | 2090 | 1390 | 1040 | 1200 | 1200 | 1600 | 1600 | 1700 | 2300 | 1840 | 2100 | 1840 | 2300 |
| | Edge | End | 4.02 | 1990 | 1590 | 1070 | 910 | 1530 | 1140 | 760 | 570 | 880 | 900 | 880 | 1200 | 1230 | 1230 | 940 | 1170 | 940 | 1170 |
| | Edge | Internal | 4.02 | 1990 | 1590 | 1070 | 910 | 1530 | 1140 | 760 | 570 | 950 | 1200 | 950 | 1600 | 1330 | 1330 | 1010 | 1260 | 1010 | 1260 |
| | Corner | End | 5.83 | 1370 | 1100 | 740 | 630 | 1050 | 790 | 520 | 390 | 610 | 900 | 610 | 1060 | 850 | 850 | 640 | 810 | 640 | 810 |
| N5 | Internal | End | 3.25 | 2250 | 1970 | 1320 | 1130 | 1890 | 1420 | 940 | 710 | 900 | 900 | 1090 | 1200 | 1350 | 1520 | 1160 | 1450 | 1160 | 1450 |
| | Internal | Internal | 3.25 | 2470 | 1970 | 1320 | 1130 | 1890 | 1420 | 940 | 710 | 1180 | 1200 | 1180 | 1600 | 1640 | 1640 | 1250 | 1570 | 1250 | 1570 |
| | Edge | End | 5.91 | 1350 | 1080 | 730 | 620 | 1040 | 780 | 520 | 390 | 600 | 900 | 600 | 1050 | 840 | 840 | 640 | 800 | 640 | 800 |
| | Edge | Internal | 5.91 | 1350 | 1080 | 730 | 620 | 1040 | 780 | 520 | 390 | 640 | 1130 | 640 | 1130 | 900 | 900 | 690 | 860 | 690 | 860 |
| | Corner | End | 8.58 | 930 | 740 | 500 | 430 | 710 | 530 | 350 | 260 | 410 | 720 | 410 | 720 | - | - | - | 550 | - | 550 |

Internal pressure where slope < 10 degrees, cladding end span
Internal pressure, cladding internal span
Edge pressure, cladding end span
Edge pressure, cladding internal span
Corner pressure where slope < 10 degrees, cladding end span

**Roof slope < 10⁰**




**Roof slope ≥ 10⁰**

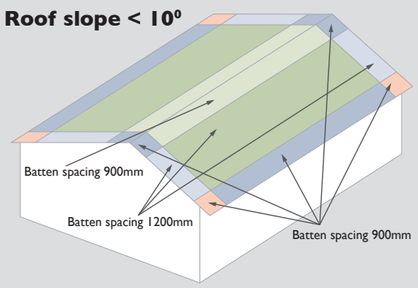




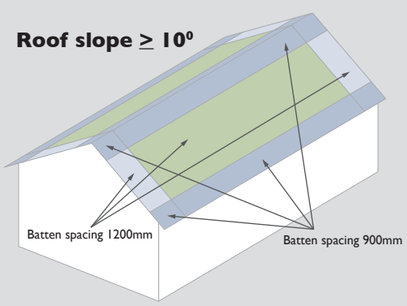

**Example:**
0.55mm BMT Stramit batten, timber trusses at 600mm centres, Corrugated 0.42mm sheeting with 5 fasteners/ sheet, N4 wind class

| BATTEN SPACING | | |
|---|---|---|
| Batten Limit | Sheeting Limit | Final |
| 2250 | 900 | 900 |
| 2700 | 1200 | 1200 |
| 1590 | 900 | 900 |
| 1590 | 1200 | 1200 |
| 1100 | 900 | 900 |

**Roof slope < 10⁰**




**Roof slope ≥ 10⁰**



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