

# APDECK 700



Apdeck is a concealed fix roofing profile rollformed from Australian made BlueScope Hi-Tensile steel. The concealed fixing system eliminates the need for exposed fasteners making its clean lines perfect for most commercial, domestic and architectural applications.

## STEEL ROOF & WALL CLADDING

Apdeck can be used on lower roof pitches down to a minimum of 1 degrees (1 in 50) for 0.48mm and 2 degrees for 0.42mm material. The deep 42mm ribs and wide pans provide excellent water carrying capacity while the concealed clip system gives added water tightness and a fast & efficient installation.

Apdeck is available in the full range of Colorbond prepainted steel colours and unpainted next generation Zinalume. Colorbond ULTRA is available for harsh environments and Colorbond Metallic finishes may be specified for architectural applications.

The high strength Zinalume steel has a minimum yield stress of a G550 (550Mpa minimum yield stress) with an AM 125 coating complying with AS 1397. All Colorbond prepainted steel complies with AS/NZS2728: 1997.

All fasteners complying with AS3566 Class 3 may be used. 3 fasteners per Clip per support to be used.

### Fixing to Steel purlins:

Batten Zip 12-11 x40mm (under 1 mm)

Tek 12-14x30mm full thread (1 mm-3mm)

### Fixing to Timber:

Batten Zip 12-11 x40mm

Apdeck is manufactured in long lengths to eliminate the need for end laps. The concealed fix clips system allows for longer runs than most conventional pierce fix profiles. It is best practice where practical to lay sheets with overlap edge facing away from the prevailing weather. Allow roof sheets to overlap into gutters by 50mm, turn down pans into gutter and turn up pans at the ridge end. Apex advises that site installation methods should comply with Australian Standards HB39.

Written site specific BlueScope material warranties are available for our Apdeck profile.



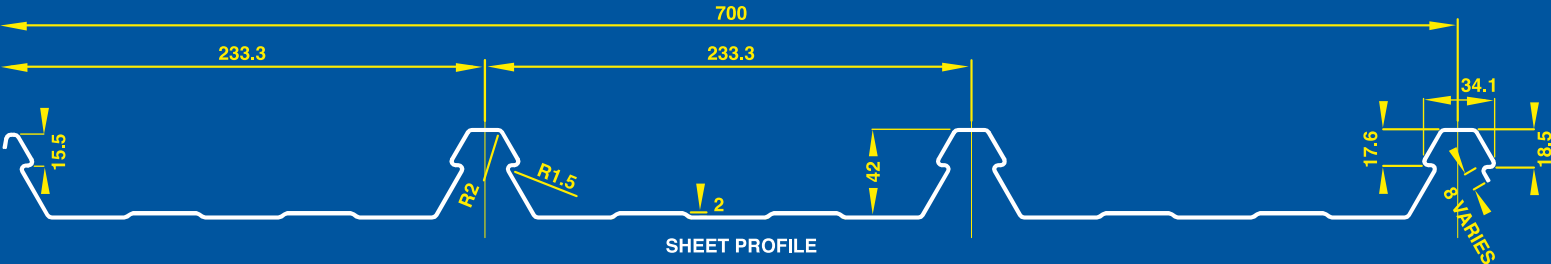
For further information including span tables, water carrying capacity, steel data sheets and lead times please refer to our website [www.apexsteel.com.au](http://www.apexsteel.com.au) or contact you're closest Apex Sales Office.

INTRODUCTION

The span tables below are prepared for wind pressure (for roof and wall) in non-cyclonic wind regions.

APDECK SPECIFICATIONS

Material - High tensile steel, G550 Base metal thickness (B.M.T.) - 0.42/0.48mm  
Cover - 700mm (width) Profile height – 42.5mm  
Finish - Available in ZINCALUME®/COLORBOND®



Ultimate Strength Pressures

The ultimate strength wind pressures on a roof for different wind classifications, as specified in AS4055-2012 are given in Table 1.

| AS 4055 wind classification | Pressure on roof - see figure 1 (kPa) |                           |                       |                  | Pressure on walls - see figure 2 (kPa) |                  |                |
|-----------------------------|---------------------------------------|---------------------------|-----------------------|------------------|----------------------------------------|------------------|----------------|
|                             | Downward pressure                     | Upwards pressure (uplift) |                       |                  | Outwards pressure                      | Inwards pressure |                |
|                             | Any position RE, G, RC                | Roof edge - RE            | Roof general area - G | Roof corner - RC | Any position - G, SC                   | General area - G | Wall edge - SC |
| N1                          | +0.44                                 | -1.25                     | -0.69                 | -1.81            | +0.62                                  | -0.53            | -0.94          |
| N2                          | +0.60                                 | -1.73                     | -0.95                 | -2.51            | +0.86                                  | -0.74            | -1.30          |
| N3                          | +0.95                                 | -2.70                     | -1.49                 | -3.92            | +1.35                                  | -1.16            | -2.03          |
| N4                          | +1.41                                 | -4.02                     | -2.21                 | -5.83            | +2.01                                  | -1.72            | -3.01          |
| N5                          | +2.07                                 | -5.91                     | -3.25                 | -8.58            | +2.96                                  | -2.53            | -4.44          |
| N6                          | +2.80                                 | -7.99                     | -4.39                 | -11.58           | +3.99                                  | -3.42            | -5.99          |

Table 1. Wind pressures on roof and house walls (reproduced from AS4055-2012)

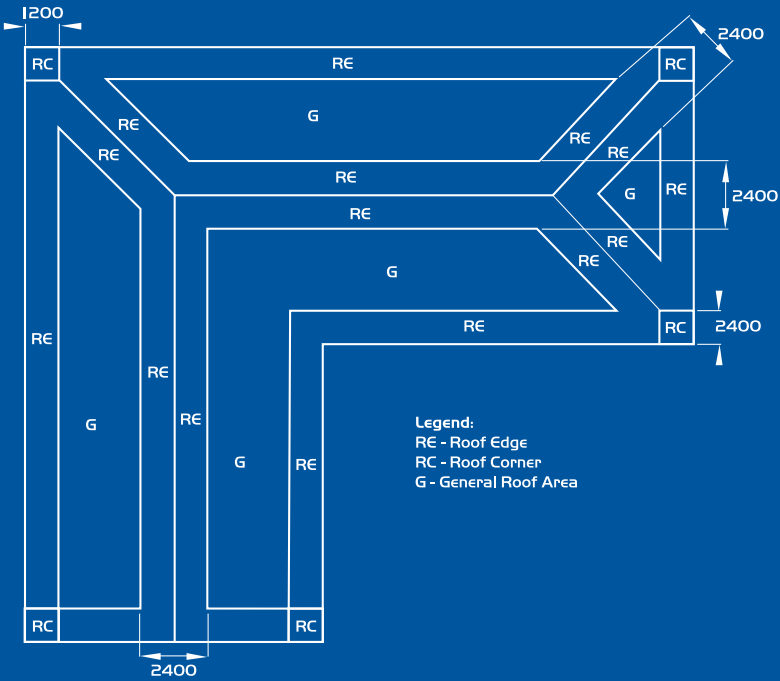


Figure 1. Pressure zones on housing roofs (plan view)

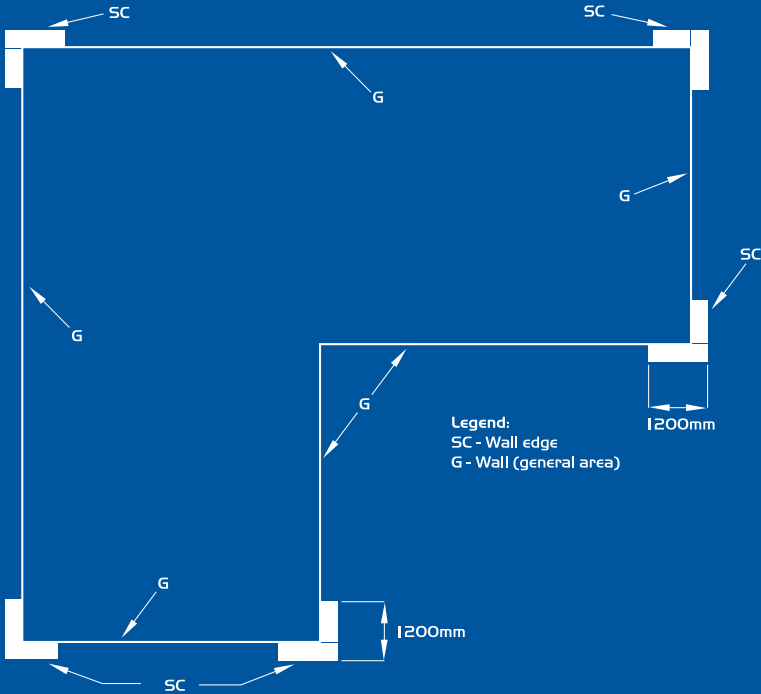


Figure 1. Pressure zones on housing walls (plan view)

| BMT<br>(mm) | Application | Location<br>on roof or<br>wall | Max. spans based on wind<br>pressures only |      |      |      | Roof foot traffic - Point Load (1.1 kN)                                                     |                                                                                    | Un-stiffened<br>Overhang | Stiffened<br>Overhang |
|-------------|-------------|--------------------------------|--------------------------------------------|------|------|------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|-----------------------|
|             |             |                                | AS4055 Wind Classification                 |      |      |      | Max. span based on foot<br>traffic only (restricted - walk<br>in pans away from roof edges) | Max. span based on foot<br>traffic only (unrestricted -<br>walk anywhere on sheet) |                          |                       |
|             |             |                                | N1                                         | N2   | N3   | N4   |                                                                                             |                                                                                    |                          |                       |
| 0.42        | Roof        | General                        | 2400                                       | 2400 | 2400 | 2175 | 1800                                                                                        | 1400                                                                               | 150                      | 450                   |
|             |             | Edge                           | 2400                                       | 2250 | 1050 | -    |                                                                                             |                                                                                    |                          |                       |
|             |             | Corners                        | 2175                                       | 1350 | -    | -    |                                                                                             |                                                                                    |                          |                       |
|             | Wall        | General                        | 2400                                       | 2400 | 2400 | 2400 |                                                                                             |                                                                                    |                          |                       |
|             |             | Corners                        | 2400                                       | 2400 | 2025 | -    |                                                                                             |                                                                                    |                          |                       |
| 0.48        | Roof        | General                        | 2400                                       | 2400 | 2400 | 2175 | 2000                                                                                        | 1600                                                                               | 200                      | 500                   |
|             |             | Edge                           | 2400                                       | 2250 | 1350 | -    |                                                                                             |                                                                                    |                          |                       |
|             |             | Corners                        | 2175                                       | 1575 | -    | -    |                                                                                             |                                                                                    |                          |                       |
|             | Wall        | General                        | 2400                                       | 2400 | 2400 | 2400 |                                                                                             |                                                                                    |                          |                       |
|             |             | Corners                        | 2400                                       | 2400 | 2025 | 1125 |                                                                                             |                                                                                    |                          |                       |

Table 2. Apdeck 700 spans for wind pressure and foot traffic

1. All spans are in mm.

2. This table is only valid for structures with the following geometric limitations:

a. Distance from ground level to the underside of eaves does not exceed 6.0m.

b. Distance from ground level to the highest point of the roof (excluding chimneys) does not exceed 8.5m.

c. Width including roofed verandas (excluding eaves) does not exceed 16.0 m, and the length does not exceed five times the width.

d. Roof pitch does not exceed 35°.

### ROOF PITCH

The maximum roof lengths for different roof pitches are given in table 3 below

| Peak rainfall intensity (mm/hr) | Roof slope |     |     |     |      |     |
|---------------------------------|------------|-----|-----|-----|------|-----|
|                                 | 1°         | 2°  | 3°  | 5°  | 7.5° | 10° |
| 100                             | 340        | 425 | 500 | 620 | 745  | 855 |
| 150                             | 225        | 285 | 330 | 415 | 495  | 570 |
| 200                             | 170        | 210 | 250 | 310 | 370  | 425 |
| 250                             | 135        | 170 | 200 | 250 | 295  | 340 |
| 300                             | 115        | 140 | 165 | 205 | 245  | 285 |
| 400                             | 85         | 105 | 125 | 155 | 185  | 210 |
| 500                             | 65         | 85  | 100 | 125 | 145  | 170 |

Note: Roof length (m) is from ridge to ridge

Table 3. Maximum roof lengths for drainage

### THERMAL EXPANSION

Metal cladding is subject to expansion and contraction due to temperature changes which on a roof can be severe. The maximum recommended sheet lengths for screw fixed cladding is 25m for Zinalume/light colours and 18m for dark colours.

For roof lengths in excess of this an expansion joint should be used to mitigate the effect of thermal expansion.

### DISCLAIMER

This document is an aid for building professionals and designers and is only valid for APDECK 700 roof and wall cladding sheets manufactured and distributed by APEX Building Products Pty Ltd. This document is not a substitute for professional advice - please seek professional advice regarding the use of this product.

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