

# NINELINE



## DESIGN GUIDE

### NINELINE™ Pleat

Through its pointed form and 90mm rib height, this profile provides a triangular reinterpretation of the classic corrugated profile, accentuating the sharpness of shadows and light play.



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# NINELINE™ Pleat

While delivering a highly aesthetic option for specifiers, its performance and strength have not been compromised due to the engineering and testing.

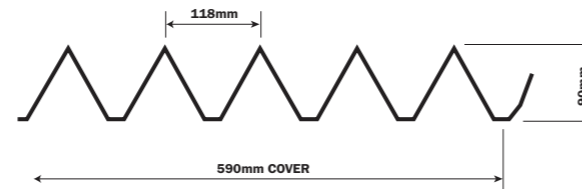
# NINELINE

Others in the Specification Sheet Library

- NINELINE™ Batten
- NINELINE™ Box



| PROFILE SPECIFICATIONS |       |
|------------------------|-------|
| Depth                  | 90mm  |
| Cover                  | 590mm |
| Longest Length         | 6.0m  |
| Minimum Length         | 0.3m  |



| MATERIAL SPECIFICATIONS       |                |         |
|-------------------------------|----------------|---------|
| Base Metal Thickness (mm)     | 0.55mm         |         |
| Tensile Strength              | G300           | Coating |
| COLORBOND® Finishes available | Standard XRW   | AM100   |
|                               | ULTRA          | AM150   |
|                               | Metallic       | AM100   |
|                               | Matt Finish    | AM100   |
|                               | Stratco Bronze | AM100   |



## WALL CLADDING - PAN FIXING

All screws must have a neoprene washer for a weather tight seal



Fasteners required per support:

5

For spans exceeding 1500mm, secure each overlap mid-span with 3.2mm Rivets (rivets to be sealed to prevent water penetration).

| Fastener required per Internal Span: |           |
|--------------------------------------|-----------|
| 1.0m span                            | 1.5m span |
| 24 per m2                            | 12 per m2 |

| Fixing | Steel 1.0mm | Contour Head 12-14 × 30 Self Drilling with Seal |
|--------|-------------|---|
|        | Timber      | Hex Head 12-11 × 25 T17 Self Drilling with Seal |

| DESIGN PRESSURES (KPA) |                |              |
|------------------------|----------------|--------------|
| Span (mm)              | Serviceability | Strength     |
|                        | End/Internal   | End/Internal |
| 900                    | 5.45           | 8.46         |
| 1200                   | 4.07           | 6.03         |
| 1500                   | 3.25           | 4.63         |
| 1800                   | 2.70           | 3.74         |
| 2100                   | 2.31           | 3.12         |
| 2400                   | 2.02           | 2.66         |
| 2700                   | 1.79           | 2.32         |
| 3000                   | 1.61           | 2.05         |
| 3300                   | 1.46           | 1.83         |
| 3600                   | 1.34           | 1.65         |

These values are for use with steel supports with a minimum thickness of 1.0mm BMT G550.

## DESIGN CRITERIA - WALLING

Design criteria determined in accordance with AS/NZS 1170.2:2021 Wind Actions.

The following criteria were used in the development of the tables:

- Region A & B with a design return period of 500 years for Strength Limit State and 25 years for Serviceability Limit State.

Pressure Coefficients for Walling of Enclosed Building:

- Internal,  $C_{p,i} = +0.2$
- External,  $C_{p,e} = -0.65$

Topographic influence has not been considered ( $M_t=1.0$ ) and spans are based on no shielding ( $M_s=1.0$ ).

Refer AS/NZS 1170.2 for definition of local pressure (Kl) zones. Kl=3.0 is only applicable for buildings with an aspect ratio greater than 1.0. Aspect ratio defined as the average building height divided by the smaller of building length and width.

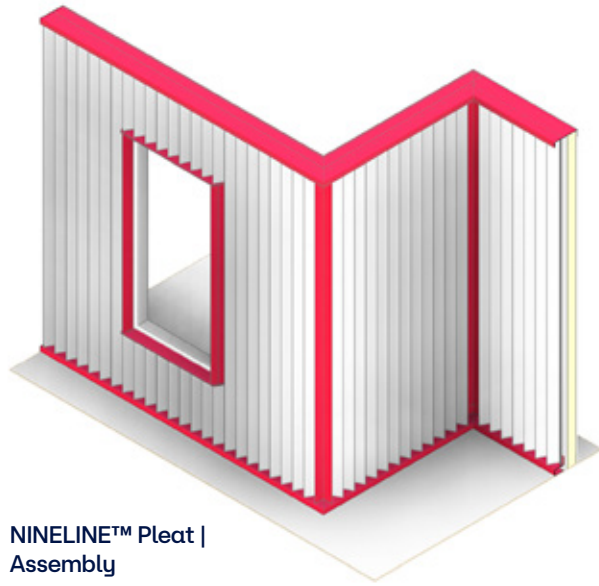
Additional engineering advice can be obtained from Stratco if any design parameters vary from those indicated above.

| MAXIMUM ALLOWABLE SPANS (mm) |     |                   |          |           |          |     |                   |          |           |          |     |                    |          |           |          |
|------------------------------|-----|-------------------|----------|-----------|----------|-----|-------------------|----------|-----------|----------|-----|--------------------|----------|-----------|----------|
| Terrain Category             | Kl  | 3m Maximum Height |          |           |          | Kl  | 5m Maximum Height |          |           |          | Kl  | 10m Maximum Height |          |           |          |
|                              |     | Region A0-A5      |          | Region B1 |          |     | Region A0-A5      |          | Region B1 |          |     | Region A0-A5       |          | Region B1 |          |
|                              |     | End               | Internal | End       | Internal |     | End               | Internal | End       | Internal |     | End                | Internal | End       | Internal |
|                              |     | End               | Internal | End       | Internal |     | End               | Internal | End       | Internal |     | End                | Internal | End       | Internal |
| 1.0                          | 1.0 | 2520              | 3600     | 2430      | 3480     | 1.0 | 2520              | 3600     | 2270      | 3250     | 1.0 | 2520               | 3600     | 2030      | 2900     |
|                              | 1.5 | 2520              | 3600     | 1840      | 2640     | 1.5 | 2520              | 3600     | 1720      | 2460     | 1.5 | 2490               | 3570     | 1540      | 2200     |
|                              | 2.0 | 2430              | 3480     | 1490      | 2140     | 2.0 | 2270              | 3250     | 1400      | 2000     | 2.0 | 2030               | 2900     | 1250      | 1790     |
|                              | 3.0 | 1790              | 2560     | 1100      | 1580     | 3.0 | 1670              | 2390     | 1020      | 1470     | 3.0 | 1490               | 2140     | 910       | 1310     |
| 2.0                          | 1.0 | 2520              | 3600     | 2520      | 3600     | 1.0 | 2520              | 3600     | 2520      | 3600     | 1.0 | 2520               | 3600     | 2310      | 3300     |
|                              | 1.5 | 2520              | 3600     | 2050      | 2940     | 1.5 | 2520              | 3600     | 2050      | 2940     | 1.5 | 2520               | 3600     | 1750      | 2510     |
|                              | 2.0 | 2520              | 3600     | 1670      | 2390     | 2.0 | 2520              | 3600     | 1670      | 2390     | 2.0 | 2310               | 3310     | 1420      | 2040     |
| 2.5                          | 1.0 | 2520              | 3600     | 2520      | 3600     | 1.0 | 2520              | 3600     | 2520      | 3600     | 1.0 | 2520               | 3600     | 2520      | 3600     |
|                              | 1.5 | 2520              | 3600     | 2220      | 3180     | 1.5 | 2520              | 3600     | 2220      | 3180     | 1.5 | 2520               | 3600     | 2020      | 2890     |
|                              | 2.0 | 2520              | 3600     | 1800      | 2580     | 2.0 | 2520              | 3600     | 1800      | 2580     | 2.0 | 2520               | 3600     | 1640      | 2350     |
| 3.0                          | 1.0 | 2160              | 3090     | 1330      | 1900     | 3.0 | 2160              | 3090     | 1330      | 1900     | 3.0 | 1960               | 2810     | 1210      | 1730     |
|                              | 1.0 | 2520              | 3600     | 2520      | 3600     | 1.0 | 2520              | 3600     | 2520      | 3600     | 1.0 | 2520               | 3600     | 2520      | 3600     |
|                              | 1.5 | 2520              | 3600     | 2400      | 3440     | 1.5 | 2520              | 3600     | 2400      | 3440     | 1.5 | 2520               | 3600     | 2400      | 3440     |
|                              | 2.0 | 2520              | 3600     | 1960      | 2800     | 2.0 | 2520              | 3600     | 1960      | 2800     | 2.0 | 2520               | 3600     | 1960      | 2800     |
| 3.0                          | 3.0 | 2330              | 3340     | 1440      | 2060     | 3.0 | 2330              | 3340     | 1440      | 2060     | 3.0 | 2330               | 3340     | 1440      | 2060     |

Note 1: All end spans shall not exceed 70% of the maximum allowable internal span.  
 Note 2: For Region A0, utilise Terrain Category 2.0 in all terrains (i.e. T.C. 2.0 throughout).

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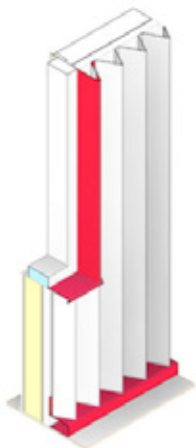
## INDICATIVE INSTALLATION DETAILS



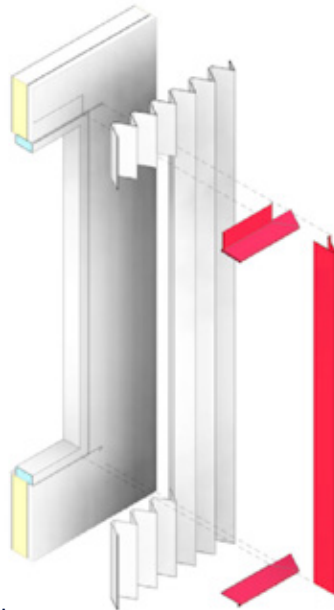
NINELINE™ Pleat |  
Assembly



NINELINE™ Pleat |  
Ext Corner Assembly



NINELINE™ Pleat |  
Window Jamb



NINELINE™ Pleat |  
Window Head & Sill



NINELINE™ Pleat |  
Ext Corner



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