

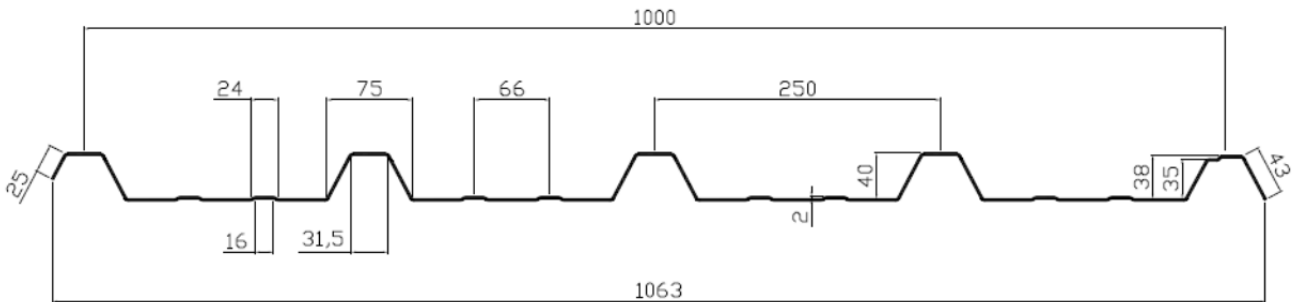
# DURASHIELD® Technical Guide

## Profile: Industrial Rib

Updated: February 2016



### Profile Drawing



### Profile Dimensions

| Profile (mm) | Thickness (mm) | Length (m) | Overall width (mm) | Cover Width (mm) | Side-Lap (%) |
|--------------|----------------|------------|--------------------|------------------|--------------|
| 250 / 40     | 2.0 – 3.0      | 1.5 - 11.6 | 1063               | 1000             | 5.9          |

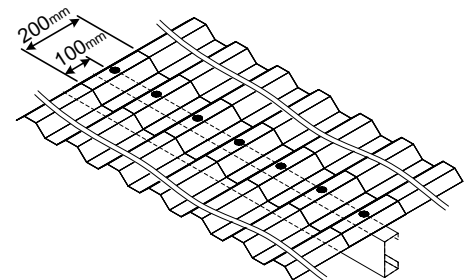
### Load / Span Data

| Load (kg/m <sup>2</sup> ) | Maximum Roof Span (mm) |          |          |          |          |          |
|---------------------------|------------------------|----------|----------|----------|----------|----------|
|                           | 2.0 mm                 |          | 2.5 mm   |          | 3.0 mm   |          |
|                           | Mid Span               | End Span | Mid Span | End Span | Mid Span | End Span |
| 50                        | 1800                   | 1350     | 1900     | 1425     | 2000     | 1500     |
| 75                        | 1700                   | 1275     | 1800     | 1350     | 1900     | 1425     |
| 100                       | 1600                   | 1200     | 1700     | 1275     | 1800     | 1350     |
| 125                       | 1500                   | 1125     | 1600     | 1200     | 1700     | 1275     |
| 150                       | 1400                   | 1050     | 1500     | 1125     | 1600     | 1200     |
| 175                       | 1300                   | 975      | 1400     | 1050     | 1500     | 1125     |
| 200                       | 1200                   | 900      | 1300     | 975      | 1400     | 1050     |

- **2mm sheet tested to AS1562.3 2006, AS4040.4 2006 (Sand Bag) over 1200 End Span & 1600 Mid Span.**
- The specified dimensions do not supersede the requirements of local construction codes.
- The maximum purlin spans are based on continuous beam calculation model and practical testing.
- The criterion for allowed deflections is L/20.
- The mentioned load refers to both wind and snow loads.
- Minimum recommended slope – 10%.
- For vertical application spans can be increased by 10%.

### Panel Length

- Maximum recommended panel length - 7.2 m.
- Recommended longitude overlap of 200mm above purlin.
- Each panel to extend 100mm over the fixings line on the purlin.
- Panels should overhang Min. 50mm and Max. 150mm beyond the last fixings line.



### Curved Roof

- Minimum curving radius 16 m.



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### Positioning

- Do not install DURASHIELD panels over existing roof, without proper ventilation of the air gap between.
- Side-lap of DURASHIELD panels should be installed against the primary direction of rain.
- The DURASHIELD panels should be located and installed without any stresses.  
Do not pull, stretch or force the sheets when the profiles are not perfectly matched.

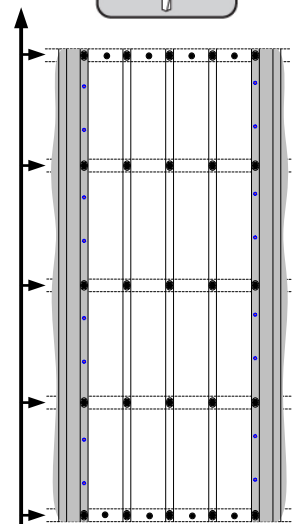
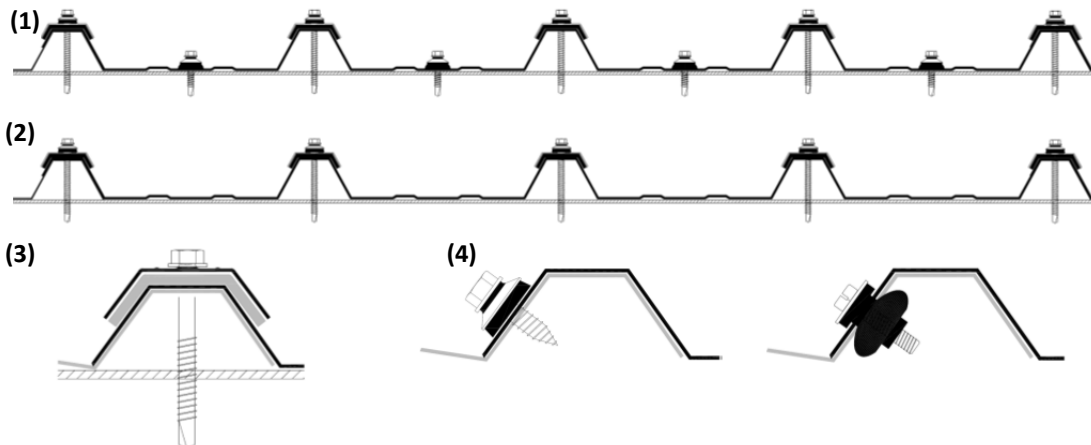


### Fastening

- Apply sealing tape over the DURASHIELD panel side-lap corrugation crests, where covered by the next panel.
- Apply sealing tape along the bottom and top End-lap (if there is), along screws centerline or two tapes on both sides of screw centerline.
- Pre-drill 10mm holes at crests where screws are positioned.
- Start fastening the screws from the first side-lap (left) through the pre-drilled holes.
- Fasten screws in the edge purlins at each corrugation crest and valley (1).
- Fasten screws at the internal purlins, at each corrugation crest, starting at the same side (2).
- Do not over-tighten!**
- Fasten the stitching screws at every 300-400 mm (3).



### Fastening Location



### Screws and Washers Specification

- USE SUNTUF SCREWS**
- Crest fixing: Self-drilling - 14g x 90mm screw with EPDM seal.
- Valley fixing: Self-drilling - 14g x 45mm screw with EPDM seal.
- In areas with strong winds and/or snow loads , and where spans between purlins are large use Cyclone washer with EPDM gasket**
- Side Stitching: 14g x 19mm self-tapping screw with EPDM seal or 9.5mm x 25mm Stitching Screws (Grommet seals) with EPDM seal.

### Important Notes

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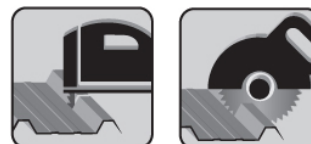
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- Use only Palram approved accessories, including EPDM rubber washers, silicones, sealing tape, closure fixtures etc.
- For clear Durashield onto wooden purlins, apply white acrylic paint, or aluminum tape, in order to prevent over-heating of the purlins.

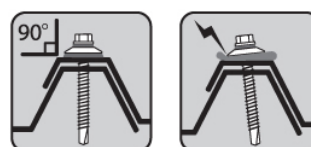
### Cutting Tips

- Use jigsaw or circular saw with fine tooth blades.
- Apply high blade speed with moderate feeding rate.
- Support the sheets near the cutting line.
- Clean the dust and cutting chips after cutting.



### Fastening Tips

- Use adjustable electric screwdriver.
- The screw must be installed perpendicular to the DURASHIELD sheet.
- **Important: Do not over-tighten.**



### Safety

- Do not step directly on the panel.
- Use stepping boards.
- Work according to local safety regulations.



### Handling and Storage

- Store in a dry shaded place, protect from direct sunlight and rain.
- Cover DURASHIELD stack with white opaque covering.
- Avoid covering the sheets with heat absorbing materials.
- Avoid contact or environment of chemicals.
- Protect the sheets from any physical damage.



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### Finishing Accessories for DURASHIELD® Sheets


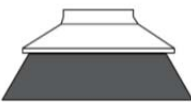
|  | Illustration | Cross Section | Dimensions mm (in.)                   |
|--|--------------|---------------|---------------------------------------|
| Universal Ridge Cap  |              |               | 1,100 x 500 x 500<br>(43 x 20 x 20)   |
| Universal Ridge Cap  |              |               | 1,100 x 270 x 270<br>(43 x 11 x 11)   |
| Air Vent Panel<br>50 mm  |              |               | 1800 x 1063<br>(83 x 44)              |
| Air Vent Cap   |              |               | Diameter: 900mm                       |
| Supports   |              |               | 350 x 50<br>(14 x 2)                  |
| Flat Ridge Cap 150°  |              |               | 2,500 x 210 x 210<br>(98 x 8 x 8)     |
| Flat Ridge Cap 150°  |              |               | 2,500 x 320 x 320<br>(98 x 59 x 59)   |
| Standard Side Gable<br>Trim 90°                                |              |               | 2,500 x 160 x 160<br>(98 x 6 x 6)     |
| Top Wall Trim  |              |               | 2,500 x 50 x 160<br>(98 x 2 x 6)      |
| Styled Gable Trim 90°  |              |               | 2,300 x 200 x 140<br>(90.5 x 8 x 5.5) |
| Foamed Polyethylene Sealing Strips<br>250/40 (Industrial 0100) |              |               |                                       |

### Screws

|                       | Illustration  | Length mm (in.)                                   |
|-----------------------|---|---|
| Self - Drilling Screw |  | 25, 38, 64, 76, 89, 121<br>(1, 1½, 2½, 3, 3½, 4¾) |
| Self - Tapping Screw  |  | 25, 38, 64, 76, 89, 121<br>(1, 1½, 2½, 3, 3½, 4¾) |

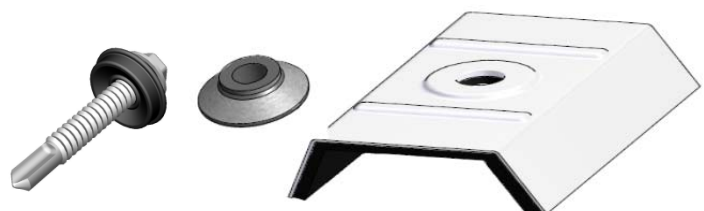
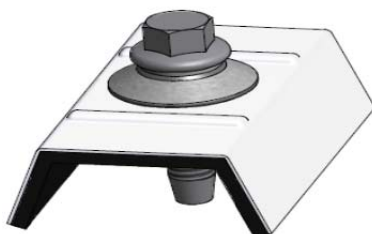


### Washers

|                    | Illustration  |
|--------------------|---|
| 19mm Washer/Gasket |  |
| 25mm Washer/Gasket |  |



### Cyclone Washer



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