DIMOND HERITAGE TRAY® PROFILE INFORMATION

**Photovoltaic Laminate please refer to note

<table>
<thead>
<tr>
<th>Cover (mm)</th>
<th>450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet width (mm)</td>
<td>465</td>
</tr>
<tr>
<td>Minimum Pitch</td>
<td>3º (approx. 1:20)</td>
</tr>
</tbody>
</table>

All dimensions given are nominal

Sheet Tolerances
Sheet width: ±5mm
Sheet width for aluminium +0, -15mm. If sheet cover widths are critical, advise Dimond® Roofing at time of order.
Sheet length: +10, -0mm. For horizontal wall cladding where notified at time of order of intended use, tighter tolerances can be achieved +3, -0.

<table>
<thead>
<tr>
<th>Material Options</th>
<th>Steel</th>
<th>Aluminium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (BMT) mm</td>
<td>0.55</td>
<td>0.90</td>
</tr>
<tr>
<td>Nominal weight/lineal metre (kg/m)</td>
<td>2.77</td>
<td>1.48</td>
</tr>
<tr>
<td>Drape curved roof – min. radius (m)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Substrate required</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Machine curved – roof min. radius (mm)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Drip edge flashing required see detail R-005-02</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Please contact your Dimond® Roofing 0800 Dimond (0800 346 663) for availability.

Roll-forming facilities at: Auckland, Christchurch and Invercargill
Curving facilities: n/a
Sheet lengths: Heritage Tray® is custom run to order. Where long sheets are used, consideration must be given to:
• Special transportation licences
• Should be run on-site
• Site access for special lifting equipment
• Fixing techniques to accommodate thermal expansion

THIS PRODUCT MUST BE INSTALLED BY A CERTIFIED & APPROVED ROOFINGSMITH

**NOTE
Photovoltaic laminates (PVL’s) can be installed on to this profile at an additional cost when the cladding is completed and other trade have finished or it can be installed at a later date.
Laminates are 348mm wide and available in 5.910mm and 2.585mm lengths. Lead time of 16 weeks
Consult with Dimond® Roofing 0800 Dimond (0800 346 663) for further information

The Dimond Roofing Heritage Tray profile is only available in a fixed cover width, and cannot be manually folded. When the profile is used as wall cladding, careful attention is required to sheet set-out and sheet width tolerances to ensure the sheet modules align to wall openings.

OIL CANNING:
Oil Canning is the visible waviness in the flat areas of metal roofing and walling. Oil canning produces an aesthetic effect inherent in standing seam tray profiles and profiles/flashings with wide flat elements. It does not cause detriment to product performance.

Oil canning can occur during the forming and installation processes and during thermal expansion of the roof sheeting during its life cycle. The effect can be more or less pronounced depending on differing light and sun angle conditions and the coating gloss levels.

For fully supported standing seam tray profiles, oil canning is reduced by the use of backer rods under the tray and/or the use of vented roof underlay. There are several options to reduce the oil canning effect in profiles/flashings – increasing the thickness of the material include the use of swages in wide flat elements limiting flat elements to less than 150mm width. For further information, please refer to the NZ Metal Roof and Wall Cladding Code of Practice, Section 12.3.

June 2018
HERITAGE TRAY® LIMIT STATE LOAD/SPAN CAPACITY CHART
(span in mm, distributed ultimate load in kPa)

Serviceability Category

<table>
<thead>
<tr>
<th></th>
<th>Unrestricted-Access Roof</th>
<th>Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fix clip to every purlin</td>
<td>Fix clip to every second purlin</td>
</tr>
<tr>
<td>G300 Steel 0.55mm</td>
<td>End Span (mm)</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Internal Span (mm)</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Ultimate (kPa)</td>
<td>4.7</td>
</tr>
<tr>
<td>5052, H34 Aluminium 0.90mm</td>
<td>End Span (mm)</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Internal Span (mm)</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Ultimate (kPa)</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Notes
1. Category 1 maximum spans are based on static point load testing as a guide, and further limited by practical experience of roof performance under dynamic foot traffic loads. Category 3 maximum spans are limited as a guide to achieving satisfactory appearance for wall cladding. Loads given are based on 4 screw fasteners/sheet/purlin.
2. Loads given are based on 1 clip per purlin, and alternative (second) purlin clipping, i.e. hit 1, miss 1. Clips are required to be fitted to all end and valley purlins, under any situation.
3. Loads given are limited to a maximum of 4.7kPa. If design requirements exceed this limit, Contact Dimond® Roofing for specific advice. N/R = not recommended.
4. End span capacities given in this table are based on the end span being the same as the internal span.
5. Design Criteria for Limit State Capacities
   a) Ultimate Limit State
      No pull through of fixings or fasteners withdrawal resulting in sheet detachment due to wind up-lift (outward) loads.
6. System Design
   The span capacity of Heritage Tray® is determined from the Heritage Tray® Limit State Load/Capacity Chart using the section of the chart appropriate to grade and type of material, and to the category of serviceability selected from the two categories below. It is recommended that to obtain a dependable design strength capacity for the ultimate limit state, a reduction factor of $\theta = 0.8$ is applied.
   The capacities given do not apply for cyclone wind conditions.
Serviceability Requirements
While these categories are given for design guidance to meet the serviceability limit state criteria, foot traffic point load damage may still occur if there is careless placement of these point loads.
Service Category  Description
1. Unrestricted-access roof  Expected regular foot traffic to access the roof for maintenance work and able to walk anywhere on the roof. No congregation of foot traffic expected.

Wind Pressure Guide
As a guide for non-specific design the following S.L.S. design loads in accordance with the MRM Roofing Code of Practice can be used for buildings less than 10m high, otherwise AS/NZS 1170.2 should be used
Low wind zone = 0.68kPa, Medium wind zone = 0.93kPa, High wind zone = 1.32kPa, Very high wind zone = 1.72kPa and Extra high wind zone = 2.09kPa.

Heritage Tray® Design
Fasteners that are used to secure Heritage Tray® clip down as a roof cladding must penetrate into the purlin a minimum of 30mm for timber and 6mm for steel purlins. For wall cladding the clip fasteners must be long enough to pass through the substrate, cavity batten and into the main frame by 30mm for timber and 6mm for steel.

Galvanised Clip Fixing Requirement 2 fixings per clip

<table>
<thead>
<tr>
<th>Purlin or frame material</th>
<th>Roof Base material</th>
<th>Wall (over vented cavity batten, 18 - 25mm thick) Base material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>Class 4 10g x 45mm wafer head</td>
<td>Class 4 Stainless steel 10g x 25mm #2sq/drive wingtec</td>
</tr>
<tr>
<td>Steel</td>
<td>Class 4 10g x 25mm #2sq/drive wingtec</td>
<td>Class 4 Stainless steel 10g x 25mm #2sq/drive wingtec</td>
</tr>
</tbody>
</table>

Design
Clip fasteners must be fixed closer together on the periphery edges of all roofs in areas of High to Extra High Wind Zones.
Unlike profiled metal cladding, the point load imposed on a fully supported cladding is supported by the substrate underneath.
Minimum pitch for Eurotray® Double Standing Seam is 5 degrees.
Heritage Tray™ Fastener Layout Options
Fix all clipping
500mm purlin centres
Very high/Extra High

Sheet end

Heritage Tray™ Fastener Layout Options
Alternate clipping
500mm purlin centres
Low - High Zones

Sheet end