DIMOND AUDIOPERF® PROFILE INFORMATION

Steel Span & Top Span

<table>
<thead>
<tr>
<th>Cover (mm)</th>
<th>900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet width (mm)</td>
<td>970</td>
</tr>
</tbody>
</table>

Hi Five, Styleline, Veedek®

<table>
<thead>
<tr>
<th>Cover (mm)</th>
<th>755</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet width (mm)</td>
<td>810</td>
</tr>
</tbody>
</table>

Image of Corrugate

<table>
<thead>
<tr>
<th>Cover (mm)</th>
<th>762</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet width (mm)</td>
<td>851</td>
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</tbody>
</table>

LT7®

<table>
<thead>
<tr>
<th>Cover (mm)</th>
<th>762</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet width (mm)</td>
<td>851</td>
</tr>
</tbody>
</table>

LT5

<table>
<thead>
<tr>
<th>Cover (mm)</th>
<th>635</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet width (mm)</td>
<td>725</td>
</tr>
</tbody>
</table>
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>Corrugate</th>
<th>6 Rib</th>
<th>Hi Five</th>
<th>V-Rib</th>
<th>LT7® &amp; 5</th>
<th>Steel/Top Span</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0.55mm (G300)</strong></td>
<td>1.3</td>
<td>1.35</td>
<td>1.5</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td>0.70mm Aluminium</td>
<td>1.3</td>
<td>1.35</td>
<td>1.5</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td>0.90mm Aluminium</td>
<td>1.5</td>
<td>1.65</td>
<td>1.7</td>
<td>1.8</td>
<td>1.8</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Indicates AZ150 Coated Steel, Pre-painted material and for internal (dry location) use.

Roll-forming facilities at: Auckland, Hamilton, Wellington, Christchurch and Invercargill (LT5 is Wellington and Invercargill)
Curving facility at: Contact Dimond® Roofing.
Sheet lengths: AudioPerf® is custom run to order. Where long sheets are used, consideration must be given to:
- Special transportation licences for sheet lengths over 16m
- Site access for special lifting equipment

AudioPerf®
AudioPerf® is a perforated ceiling system for commercial applications and is manufactured from perforated metal of aluminium and roll-formed into a wide range of profiles.
Developed for large and medium scale building applications, and particularly large span ceiling applications. AudioPerf® gives strong clean lines and bold symmetry with modern forms it is used to create dynamic shadows and can be integrated with bespoke flashings to create negative details and installation points for sprinklers, light units etc.

Profiles
AudioPerf® is available in the following profiles:
- Steel Span or Top Span
- LT7® & LT5
- V-Rib
- High Five
- Six Rib
- Corrugate

Material Thicknesses
- 0.55mm AZ150 Coated Steel
- 0.55mm MagnaFlow™
- 0.70mm AlumiGard™
- 0.90mm AlumiGard™
As the product is intended primarily as an internal ceiling material other uses should be considered carefully on an individual basis in consultation with Dimond® Roofing, typical examples are:

- External use such as veranda ceiling, decorative panels or back lit applications as wall cladding
- Curved or Bull-nose applications
- Internal wall cladding or areas exposed to physical contact or vandalism

**Perforations**

Perforations are available in four holes sizes and array pitches giving open areas of 7% to 60%. Examples are shown below:

*Note:* for acoustic performance, AP143 is recommended

- **AP119** - 2.5mm at 15mm centres 7% open area
- **AP143** - 3.2mm at 6.5mm centres 23% open area
- **AP129** - 3.2mm at 5mm centres 32% open area
- **AP165** - 4mm at 5mm centres 58% open area

**Span Data**

The table on the front page cover, the installation onto metal battens using the material thickness, condition and perforation pattern specified. Note the span data assumes self-weight only and penetrations, inserts of other items should have loads reacted directly against structural members rather than imposed via the AudioPerf®. For small items (less than 3kg) where no more than 2 items exist on the same sheet these should be located near to battens (to avoid sag) and battens spans should be reduced by 20%.

**Curved Ceilings**

Sheets may be rolled over their width or sprung curved/ machine curved over their length, for corrugated profile the following should be maintained:

- **Width Curved**  1 metre radius
- **Sprung curved**  10 metre radius
- **Machine curved**  2 metre radius
Acoustic Performance
Testing of the ceiling system is to ASTM C423 and ASTM E1414. Independent laboratory testing of insulation materials can give an NRC value of up to 1.0 testing of a typical complete system has shown the following NRC values:

- CSR-AP143 corrugate direct fixed with 25mm insulation = NRC 0.55
- CSR-AP143 corrugate direct fixed with 50mm insulation = NRC 0.70
- CSR-AP143 corrugate direct fixed with 75mm insulation = NRC 0.70

(NRC) Noise Reduction Coefficient

Fire Performance
The system when installed on metal purlins or battens complies with the New Zealand Building Code C/AS1 and has been specifically tested to AS1530.3 and meets the following:

<table>
<thead>
<tr>
<th>Ignitability Index (Range 0–20)</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spread of Flame (Range 0–10)</td>
<td>0</td>
</tr>
<tr>
<td>Heat Evolved Index (Range 0–10)</td>
<td>0</td>
</tr>
<tr>
<td>Smoke Developed Index (Range 0–10)</td>
<td>3</td>
</tr>
</tbody>
</table>

Durability
All materials selected and supplied by Dimond® Roofing are warranted for internal use only, to exceed the requirements of clause B.2.3 (1) of the first schedule to the Building Regulations 1992 for 15 years durability, providing the materials selected are suited to the environment and designed, detailed, and fixed and maintained in compliance with Dimond® Roofing instructions, the Roofing Code of Practice and good trade practice.

Lengths
AudioPerf® is made to custom long run lengths. Where these exceed 16 metres, they may require special transport and handling facilities. For lengths over 24m, special Land Transport Safety Authority permission should be sought at design stage.

Flashings
Standard flashings are available for each profile. Attention is drawn to use of matching flashing material in contact with the AudioPerf®. In addition, curved flashings are available to suit curved or sprung ceilings.

Fixing
Fasteners for internal use shall be 12g x 20mm steel or 12g x 25mm timbertite and be pan fixed.

Maintenance
No specific maintenance is required for internal use than an annual removal of dust with a mild detergent.
Avert the product being prolonged contact with debris that could hold moisture. Regularly hose down and clean any areas showing accumulation of dirt salt other contaminants. Always use a non-abrasive brush. For moderate environments this should be carried out at least annually. Avoid contact with, or discharge from dissimilar metals.
Failure to observe these guidelines may result in voiding the warranty and affect the durability of the product.

June 2018