ACOUSTIC INFILLS

High performance sound absorption for perforated metal decks
ACOUSTIC INFILLS

An effective solution to control the indoor acoustic environment.

ROCKWOOL Acoustic Infills are engineered to fit within the troughs of a perforated metal deck, where they act to absorb incident sound that would otherwise be reflected back into the space below. This lowers the reverberation time within the room, which lowers the noise level and can improve speech intelligibility.
Description

ROCKWOOL Acoustic Infills combine optimal density, random fibre orientation and excellent fit to provide a significant improvement in sound absorption when used within the troughs of perforated metal roof decks. The product is wrapped in a factory-applied acoustically-transparent white tissue facing for improved aesthetics.

For the best performance, we recommend using in combination with ROCKWOOL HARDROCK® Multi-Fix roofing boards.

Applications

ROCKWOOL Acoustic Infills are used across all sectors, including commercial, industrial, leisure, health and educational. They are used to control noise in convention and sports halls, swimming pools, manufacturing plants, meeting areas, food courts, indoor concourses; to name but a few applications.

Advantages

• Optimum density with random fibre orientation provides exceptional acoustic absorption
• Pre-cut to suit specific profiles for quick and easy installation
• Enhanced aesthetics: faced on all sides with an acoustically transparent tissue covering
• Achieves Class C absorption under EN ISO 11654 (when tested in conjunction with ROCKWOOL HARDROCK® Multi-Fix)
• Vapour control layer can be installed directly onto the roof decking
• Manufactured using non-combustible ROCKWOOL insulation
**Performance**

The ability of the underside of the following roof build-up to absorb sound was tested to BS EN ISO 354:

- ROCKWOOL Acoustic Infills within perforated TATA D60 perforated steel deck (13% open area)
- Vapour control layer
- 210mm ROCKWOOL HARDROCK® Multi-Fix
- Mechanically fastened single ply membrane

**Results**

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Absorption Coefficient</td>
<td>0.55</td>
<td>0.95</td>
<td>1.00</td>
<td>0.90</td>
<td>0.60</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Weighted absorption coefficient $\alpha_W = 0.60$

**Technical information**

**Standards & approval**
- EN ISO 11654: Class C absorber
- ASTM C 423-01: NRC 0.90

**Dimensions**

<table>
<thead>
<tr>
<th>To suit TATA deck</th>
<th>Length (mm)</th>
<th>Major (mm)</th>
<th>Minor (mm)</th>
<th>Thickness (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D46</td>
<td>1200</td>
<td>116</td>
<td>63</td>
<td>42</td>
</tr>
<tr>
<td>D60</td>
<td>1200</td>
<td>106</td>
<td>60</td>
<td>55</td>
</tr>
<tr>
<td>D100</td>
<td>1200</td>
<td>120</td>
<td>59</td>
<td>95</td>
</tr>
<tr>
<td>D135</td>
<td>1200</td>
<td>161</td>
<td>39</td>
<td>130</td>
</tr>
<tr>
<td>D159</td>
<td>1200</td>
<td>138</td>
<td>34</td>
<td>150</td>
</tr>
</tbody>
</table>

Acoustic Infills to suit other deck types may be available upon request, subject to a minimum order quantity. For more information please contact your local ROCKWOOL representative.

**Density**

The standard density of ROCKWOOL Acoustic Infills is 60kg/m$^3$.

**Handling**

When handling Acoustic Infills they should be properly supported along their length.

**Weather Protection**

Acoustic Infills should be stored under cover. Acoustic Infills that have become wet should be allowed to fully dry out naturally before use, at which point they should regain their original properties. For more information please contact Technical Solutions on 01656 868 490.
Installation
Insert ROCKWOOL Acoustic Infills directly into the troughs of the metal deck, ensuring that all joints are tightly butted. Individual Acoustic Infills can be cut down to shorter lengths using a sharp knife if required.

Specify SPRA
The Single Ply Roofing Association (SPRA) represents membrane manufacturers, associated component manufacturers and specialist subcontractors, and aims to ensure the delivery of best value single ply roofing systems, through a quality assured partnership. By specifying products and specialist installation by SPRA Manufacturer, Associate and Contractor members you can be assured that all parties meet strict quality criteria.

Compliance with these criteria and with the Code of Conduct is assessed at application, by annual audit and by random spot checks. For further information, and to obtain copies of the SPRA Design Guide and other documents, go to www.spra.co.uk or call 0115 914 4445.
Sustainability
As an environmentally conscious company, ROCKWOOL promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All ROCKWOOL products provide outstanding thermal protection as well as four added benefits:

- Environment
  Made from a renewable and plentiful naturally occurring resource, ROCKWOOL insulation saves fuel costs and energy in use and relies on trapped air for its thermal properties.
  ROCKWOOL insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).
  ROCKWOOL is approximately 97% recyclable. For waste ROCKWOOL material that may be generated during installation or at end of life, we are happy to discuss the individual requirements of contractors and users considering returning these materials to our factory for recycling.

- Health & Safety
  The safety of ROCKWOOL stone wool is confirmed by current UK and Republic of Ireland health & safety regulations and EU directive 97/69/EC. ROCKWOOL fibres are not classified as a possible human carcinogen.

- Fire resistance
- Acoustic comfort
- Sustainable materials
- Durability

Interested?
For further information, contact the Technical Solutions Team on 01656 868490 or email technical.solutions@rockwool.co.uk
Visit www.rockwool.co.uk to view our complete range of products and services.

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The ROCKWOOL Trademark

ROCKWOOL® - our trademark

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the largest assets in the ROCKWOOL Group, and thus well protected and defended by us throughout the world.

If you require permission to use the ROCKWOOL logo for your business, advertising or promotion. You must apply for a Trade Mark Usage Agreement. To apply, write to: marketcom@rockwool.com.

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HARDROCK®
ROCKFLOOR®
FLEXI®
BEAMCLAD®
FIREPRO®

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