Material Description & Properties

Agglomerated cork blended with recycled PU based foam for high impact noise insulation in floating screed applications.

PRODUCT SPECIFICATION

“... mm resilient acoustic underscreed made of agglomerated cork and recycled polyurethane foams (PU) with PU elastomer bonding agent for impact noise insulation of floating screeds, with a density of 274Kg/m³ and an impact noise reduction ΔL₂₅ dB.”

KEY FEATURES

- Impact noise reduction and thermal insulation properties
- High load capacity with low deflection
- Long-term resilience
- Produced from recycled and natural materials
- Very light and flexible material, easy to handle

ACOUSTICAL RESULTS

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>12/6</th>
<th>17/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΔL₂₅ (dB)¹</td>
<td>29</td>
<td>31</td>
</tr>
</tbody>
</table>

ⁱ as per ISO 10140-3 and ISO 717-2

TEST APPARATUS (ΔL₂₅)

01. Concrete floating screed with 70mm thickness
02. Agglomerated resilient layer - U38
03. Reinforced concrete slab of thickness 140mm

DYNAMIC STIFFNESS

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>12/6</th>
<th>17/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Stiffness (MN/m³)</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION @ 0.0045MPa (% OF START HEIGHT)

<table>
<thead>
<tr>
<th>Stress (MPa)</th>
<th>0</th>
<th>0.01</th>
<th>0.03</th>
<th>0.05</th>
<th>0.07</th>
<th>0.09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deflection (mm)</td>
<td>0</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Thermal Properties

Thermal Conductivity: 0.0548 W/(m,°C) – as per ISO 8301

Specific Weight: 274Kg/m³
Tensile Strength: 207 KPa
Cp level: 2H

ACMST F1315 • ASTM F152 • ISO 092/19 • For both thicknesses 12/6 and 17/8

STANDARD DIMENSIONS

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>12/6</th>
<th>17/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (m) x Length (m)</td>
<td>1X11</td>
<td>1X8</td>
</tr>
</tbody>
</table>

Others sizes available upon request

Note: Following ISO8013-1998 measured in Cantilever Test System
ACOUSTICAL RESULTS


![Graph showing acoustic results](image)

**Frequency (Hz)**

- $L_{1/2}$ (dB) - 12/6mm
- $L_{1/2}$ (dB) - 17/8mm

- $L_{1/2}$ - Normalized impact sound pressure level of the reference floor;
- $L_{1/2}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test.

<table>
<thead>
<tr>
<th>Ref. Test Report</th>
<th>ACL 183/19</th>
<th>ACL 182/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td>12/6</td>
<td>17/8</td>
</tr>
<tr>
<td>$L_{1/2} (C_{1/2})$</td>
<td>49 dB</td>
<td>47 dB</td>
</tr>
<tr>
<td>$\Delta L_{1/2} (C_{1/2})$</td>
<td>29 dB</td>
<td>31 dB</td>
</tr>
</tbody>
</table>

GENERAL INSTALLATION INSTRUCTIONS

The following installation instructions are recommended by Amorim Cork Composites, but are not intended as a definitive project specification. They are presented in an attempt to be used with recommended installation procedures of the flooring manufacturers and screed.

**Room Conditions**

Temperature > 15°C / Room moisture content < 75%.

**Subfloor**

All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

**Perimeter Insulation Barrier**

Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

Mini-rolls of perimeter barrier (PB U38) available upon request.

**Installation Instruction for Acousticrok U38**

Unpack the Acousticrok U38 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticrok U38 to the desired size to fit the installation. Apply directly over the subfloor with the dimpled side down. Always ensure that material is installed to fit the application avoiding the creation of waves in the material.

Place the Acousticrok U38 directly against the insulation perimeter barrier already installed. Proceed to cover the entire floor making sure that the joints are butted tight and use an adequate tape to fix it. After completion, the Acousticrok U38 should cover the entire flooring area without gaps and with joints securely taped. Never mechanically fasten the Acousticrok U38 with screws, nails or staples as this will severely diminish the performance of the insulation barrier.

**Screed and Final Flooring**

Cast a suitable screed over U38 previously installed.

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.

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The data provided in this Material Data Sheet represents typical values. This information is not intended to be used as a purchasing specification and does not imply suitability for use in a specific application. Failure to select the proper product may result in either equipment damage or personal injury. Please contact Amorim Cork Composites regarding specific application recommendations. Amorim Cork Composites expressly disclaims all warranties, including any implied warranties or merchantability or of fitness for a particular purpose. Amorim Cork Composites is not liable for any indirect, special, incidental, consequential, or punitive damages as a result of using the information listed in this MDS. Any of its material specification sheets, its products or any future use or re-use of them by any person or entity. For contractual purposes, please request our Product Specifications Sheet (PSG).

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