Material Description & Properties

Agglomerated cork underlay for impact noise and thermal insulation.

**PRODUCT SPECIFICATION**

“___mm resilient acoustic underlay made of agglomerated cork with PU (polyurethane) elastomer bonding agent for impact noise insulation for different types of flooring, with a density of 175kg/m³ and an impact noise reduction $\Delta L_w$ of ___dB”

**KEY FEATURES**

- Natural and sustainable product
- Impact noise reduction and thermal insulation properties
- High durability and long term resilience
- High performance with reduced thickness
- Tested according to MMFA/EPLF requirements group 1

**THERMAL PROPERTIES**

Thermal Conductivity: 0.04 W/mK

ISO 8301

**PHYSICAL AND MECHANICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Weight (1)</td>
<td>150 - 200 Kg/m³</td>
</tr>
<tr>
<td>Tensile Strength (2)</td>
<td>&gt; 200 KPa</td>
</tr>
<tr>
<td>Compression at 0.7MPa (2)</td>
<td>30%</td>
</tr>
<tr>
<td>Recovery after 0.7MPa (2)</td>
<td>&gt; 70%</td>
</tr>
</tbody>
</table>

(1) ISO 10140-3 and ISO 717-2, (2) ISO 7322

**ACOUSTICAL RESULTS**

<table>
<thead>
<tr>
<th>Flooring</th>
<th>Laminate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td>2</td>
</tr>
<tr>
<td>$\Delta L_w$ (dB) (1)</td>
<td>20</td>
</tr>
<tr>
<td>IIC (dB) (2)</td>
<td>54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flooring</th>
<th>Glued Down Wood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td>3</td>
</tr>
<tr>
<td>$\Delta L_w$ (dB) (1)</td>
<td>26</td>
</tr>
<tr>
<td>IIC (dB) (2)</td>
<td>59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flooring</th>
<th>Ceramic (or Natural Stone)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td>5</td>
</tr>
<tr>
<td>$\Delta L_w$ (dB) (1)</td>
<td>16</td>
</tr>
<tr>
<td>IIC (dB) (2)</td>
<td>50</td>
</tr>
</tbody>
</table>

(1) ASTM E492-09 & ASTM E989-06

**STANDARD DIMENSIONS**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>2</th>
<th>3</th>
<th>3 perforated</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (m) x Length (m)</td>
<td>1x10</td>
<td>1x10</td>
<td>0.5x10</td>
<td>1x10</td>
</tr>
</tbody>
</table>

Others sizes available upon request
ACOUSTICAL RESULTS


Normalized impact sound pressure level reduction index of the covering under test, on a normalized floor:

\[ \Delta L_w(C_l, \Delta) \]

Test apparatus (\( \Delta L_w & IIC \))

Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles. Agglomerated cork resilient layer - T61. Reinforced concrete slab of thickness 140mm.
LOAD DEFLECTION

CREEP DEFLECTION @ 0.0045MPA (% OF START HEIGHT)

Stress [MPa] vs. Deflection [mm] vs. Time [h]

2 mm 3 mm 5 mm

INSTALLATION

GLUED FLOORS

NON GLUED FLOORS

Note: Following ISO8013-1998 measured in Cantilever Test System

01. Reinforced concrete slab
02. Adhesive
03. Agglomerated cork resilient layer - T61
04. Floor covering composed by glued down wood, ceramic or nature stone
05. Perimeter insulation barrier
06. Vapor barrier
07. Floor covering composed by non glued laminate floor
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.

**Room Conditions**
Temperature > 10°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.

**Vapor Insulation Barrier (only for Non Glued Floors)**
PE (Polyethylene) vapor insulation barrier covering the entire flooring area, minimum 50mm wide vertically around the perimeter of the entire floor MUST be installed prior to the Acousticork T61.

Install by overlapping (minimum 100mm) the PE foil, and use an adequate tape to adhere/fix it, if necessary. After completion, PE foil should cover the entire concrete area without gaps. Never mechanically fasten the PE foil barrier with screws, nails or staples as this will severely diminish the performance of the insulation barrier.

**Installation Instruction for Acousticork T61**
Unpack the Acousticork T61 at least 24h before the installation and store it in the room where the installation will take place. Cut the T61 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up, removing all trapped air.

An independent perimeter insulation barrier can be installed around the entire perimeter of the room with width equal to that of the floor build up.

Both solutions are valid, the most important is 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.

After completion, the T81 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

**Final Flooring**
Always follow manufacturers recommended installation instructions.

**Recommended Adhesives**:
- Wood floor to Acousticork: Water-Based Emulsion/Polyurethane Glue
- Vinyl and linoleum to Acousticork: Water-Based Emulsion/Synthetic Resin Glue
- Ceramic to Acousticork: Flexible Cement Glue
- Acousticork to slab/screed: Water-Based Emulsion/Acrylic Adhesives

**Application Process**

**NON GLUED FLOORS**

**GLUED FLOORS**
1. Perimeter barrier application; 2. Underlay application (glued); 3. Final floor application (glued); 4. Perimeter insulation barrier cut.

**Important Notes**
Never mechanically fasten the Acousticork T61 to the flooring floor as this will severely diminish its acoustical value.

For detailed installation instructions, please contact us.

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Mini-rolls of perimeter barrier (PB T61) available upon request.

Tested according to MMFA/EPLF requirements Group 1

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 equipments 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 (PDA).

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