noise > silentstep® - acoustic carpet underlay

> reduces impact & airborne noise  > high performance
> easily installed  > quality assured & tested  > cost effective
The trend towards high-density living and light weight building construction over the last decade has required an improvement in the control of noise in multi storey buildings. Noise issues often relate to impact noise created by foot traffic and airborne noise created by activity travelling through light weight or poorly constructed flooring systems. Silentstep offers a solution to these problems.

Silentstep is a cost effective high performance acoustic underlay that offers excellent support for all types of carpet. Silentstep provides a significant reduction in both airborne and impact noise from the floor above into the room directly below in two storey domestic and commercial applications. Silentstep works to control footfall noise (impact) in inter-tenant living, reducing airborne noise from radio, TV, home entertainment systems or human voice.

Silentstep is laid as simply as conventional underlay, replacing existing underlay. Its final manufactured thickness ensures easy laying during installation, as with conventional underlay.

For improved performance in extreme inter-tenancy noise problems, a floating floor can be created using Silentstep by laying a sub floor on top of the Silentstep then replacing the existing underlay and carpet.

Silentstep underlay creates a decoupled noise barrier with the bottom layer of foam isolating the noise barrier from the floor structure.

Silentstep’s flexibility resists compression set, controlling impact noise problems.

It is extremely effective as an underlay over tongue and groove floors. Silentstep underlay also performs as a seal to prevent sound transmission through gaps and cracks in older flooring.
1. Use standard domestic carpet gripper unless otherwise directed.
2. Lay the foam side of the Silentstep onto the floor surface.
3. Butt the edges of the Silentstep together – Join each sheet with good quality underlay tape.
4. Silentstep has sufficient internal weight to remain in position during the fitting of the carpet. Bonding and stapling will reduce the acoustic performance of the material.

> acoustic

Silentstep’s construction has been optimised to control impact and airborne noise through its multi layer construction. Impact noise is created by the impact of foot steps across a floor. The combination of the cushioning effect of the acoustic foam and the damping of the noise barrier effectively controls this noise problem. Airborne noise is created by activity from voice, audio equipment, etc. Silentstep’s heavy layer reduces the transfer of airborne noise due to its high mass and limp nature.

5. Cut the Silentstep in as per normal underlay installation.
6. Make certain the carpet is firmly attached to the leading gripper pins.
7. Bolster the carpet between the far side gripper edge and skirting board.
Silentstep has been tested to:
- ISO 140-7:1998 (E) (Impact)
- AS 1191-1985 (Airborne)

Properties:

<table>
<thead>
<tr>
<th>Thickness (mm nominal)</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll length (metres)</td>
<td>5.0</td>
</tr>
<tr>
<td>Roll width (metres)</td>
<td>1.35</td>
</tr>
<tr>
<td>Roll weight (kg nominal)</td>
<td>33</td>
</tr>
<tr>
<td>Colour</td>
<td>Black facing</td>
</tr>
<tr>
<td>Recommended temp range</td>
<td>-20°C to +100°C</td>
</tr>
<tr>
<td>Foam treatment</td>
<td>Anti bacterial</td>
</tr>
</tbody>
</table>

Australia and New Zealand

“The floor covering tested met the requirements of Building Code of Australia (BCA) from impact generated sound. It is predicted that using the floor covering tested in combination with a correctly constructed floor structure in dwellings between habitable rooms would meet at least AAAC 4 star rating. The improvement in the floor covering tested, over the bare timber floor, was at least 36 dB for frequencies centred on 315 Hz.” (When compared to a bare timber floor as per test report)

Comments from Report nss21031. Conducted and compiled by Ken Scannell MSc MAAS MIOA - Noise and Sound Services