

Product Data and Submittal Sheet
STC Acoustic Sleeper™

Project Information

Product Description

The STC Acoustic Sleeper™ is a sound and vibration isolator made of solid neoprene rubber. It supports structural panels for high IIC ratings. The Acoustic Sleeper profile limits the vibration pathways from the finish floor surface into the floor structure; 99.8% of the floor area is isolated from the structure. Only ¼" thick, the Acoustic Sleeper is available as a pad or strip. The Acoustic Sleeper is an integral part of several UL Designs of floor/ceilings assemblies with 1-hour and 2-hour fire resistance for wood joists, wood trusses, I-joists, metal joists, light gauge metal trusses, and concrete. The Acoustic Sleeper™ has been issued US Patent No. 10,041,245.



Applications

Floor construction above dwelling units and sleeping rooms are required by building codes to have an Impact Insulation Classification of IIC-50 or better (IBC 1207.3). The Acoustic Sleeper is commonly used in multiple dwellings and is a major component for achieving this rating in:

- Apartments
- Condominiums
- Hotels
- Dormitories and Senior Living

Fire Rated Construction Types III-A and V-A

1-Hour UL Floor/Ceiling Assembly designs:

- Wood Joists: L502, L506, L514;
 - 2-hour: L505
- I-Joists: L589
- Wood Truss: L528, L563, L574;
 - 2-hour: L577
- Metal Joists: L524
- Light Gauge Metal Truss: L560, L565

Non-Combustible Construction Types I and II

Acoustic Sleeper pads and strips can be used with wood panel floor covering (IBC 804.1, IBC 603.1.5). Cement-bonded particle board, magnesia board, and structural cement panels are part of UL Design P906.

Specifications

Include in Section 061600 Sheathing as "Acoustical Underlayment System": Resilient sleeper pads or strips of ¼"-thick neoprene rubber to support structural panels for impact noise control in floor construction; ΔIIC-23 per ASTM E 2179; STC Sound Control "Acoustic Sleeper."

Installation

At fire-rated wood floor/ceiling assemblies, staple pads or strips to the floor deck in line over structural members and place tongue-in-groove panels on top; nail through pads to the structural members.

At concrete and other solid decks, nail or adhere pads to the underside of the panels. Set loosely-laid panels in a running bond with staggered joints.

In all cases, a thin bead of adhesive may be applied to the trailing butt edges of the panels to assist alignment and to reduce localized deflections. Minimal fastening to the deck through the pads is permitted for loosely-laid panels to prevent displacement. Install any type of finish floor on top of the panels per finish floor manufacturer's instructions.

Quantity Estimate

Preplan layout of Acoustic Sleeper pads for minimal deflection based on panel thickness and live loads.

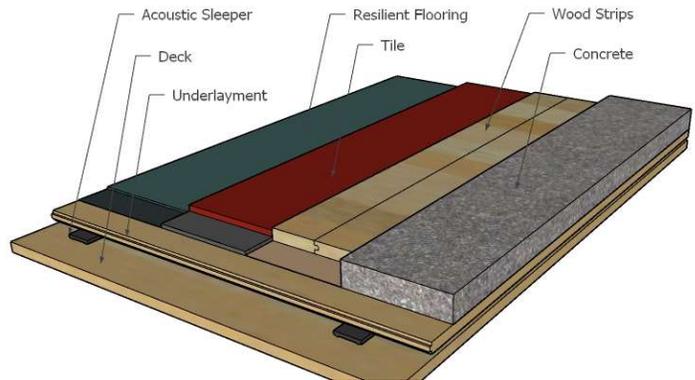
Area per 100 Pads		
Structural Spacing	Pad Spacing	
	16"	24"
16"	133	200
19.2"	152	229
24"	200	266

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Availability

Color: Black rubber.
Configurations: 1-½" wide by ¼" high neoprene extrusion as pads (1-½" square) or strips (8' long).
 Place orders for the *Acoustic Sleeper* through our online store <http://stcsoundcontrol.com> or phone (800) 513-9425.



Performance & Physical Properties

Impact Insulation Classification (ASTM E 2179): ΔIIC-23.
Refer to chart for detailed information.

Sound Transmission Classification (ASTM E90): STC-55 for wood joists; STC-59 for wood truss; STC-52 for concrete, no ceiling; STC-65 for concrete and ceiling.

IMPACT INSULATION CLASSIFICATION	With Ceiling				Without Ceiling	
	Wood Joists and Trusses		Concrete Deck		Concrete Deck	
	Direct Attachment	Sleeper System	Direct Attachment	Sleeper System	Direct Attachment	Sleeper System
None	43	52	40	64	27	51
Vinyl Plank (LVT)	43	54	40	64	27	51
with pad	64	75	62	85	49	72
Engineered Wood with pad	47	58	45	68	32	55
Wood Strips	43	54	40	64	27	51
with pad	49	58	45	69	32	55
Porcelain, Stone or Ceramic Tile	28	54	40	64	27	51
with crack isolation pad	32	58	45	69	32	55
Polished Concrete	32	58	45	68	32	55
Carpet with pad	53	79	66	89	53	76

Maintenance

No maintenance is expected.

Limitations

None.

Safe Handling Information

No special precautions required.

Important Notice to User

Many factors will determine field results including sound flanking from other locations, spacing of sleepers, mix of pads and strips, and characteristic IIC of additional flooring components. Refer to actual sound test reports and analysis for this and any other noise control product.

Warranty

STC Sound Control warrants that the Acoustic Sleeper will be free from defects in material and manufacture. STC makes no other express or implied warranties.

Approval Stamp