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 span-rated wood or CBPB panels (cement-bonded particle board) for high IIC ratings (Impact Insulation Classification). The Acoustic Sleeper profile (patent published) limits the vibration pathways from the finish floor surface into the floor structure; 99.8% of the floor area is isolated from 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 fire resistance for wood joists, wood trusses, I-joists, metal joists and light gauge metal trusses.

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
- Assisted Living Facilities

Fire Rated Construction Types III and V

1-Hour UL Floor/Ceiling Assembly designs:

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

Non-Combustible Construction Types I and II

Use Acoustic Sleeper pads as an underlayment with non-combustible CBPB or firestopped wood.

Specifications

Include in Section 061600 Sheathing as "Acoustical Underlayment System": Resilient sleepers of ¼"-thick neoprene rubber to support T&G wood or CBPB panels for impact noise insulation in floor construction; Delta-IIC per ASTM E 2179 of 18 dB; STC Sound Control "Acoustic Sleeper."

Installation

At fire-rated 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, staple pads and strips to the underside of the panels. Set loosely-laid panels in a running bond with staggered joints.

In all cases, apply a thin bead of adhesive to the trailing butt edges of the panels to assist alignment and to reduce localized deflections. Minimal fastening to the deck 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. Refer to Table for recommended spacing.

Acoustic Sleepers: Quantity Estimate

Structural Support Spacing	Uniform Load (psi)	Minimum Panel Thickness	Pad Spacing		Area per 100 Pads (sf)
			Along Supports	At Butt Edges	
16"	40	19/32"	24"	8"	210
	100	19/32"	16"	8"	150
24"	40	19/32"	24"	8"	260
	100	23/32"	24"	8"	260

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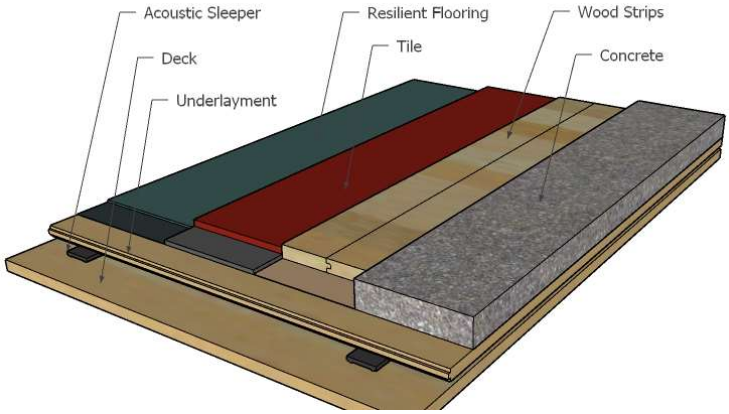
Availability

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-18** for plywood on rubber pads at 24" o.c. in field (NGC-7016172).

Concrete Deck: IIC-46, no ceiling, no floor; IIC-50, no ceiling, sheet vinyl floor, no pad; IIC-65 with ceiling, sheet vinyl floor, no pad.

Wood Deck on Trusses (UL Design L528): IIC-46 with ceiling and no floor; IIC-50 with sheet vinyl floor and pad; IIC-67 with vinyl plank floor and pad.

Sound Transmission Classification (ASTM E90): STC-51 (NGC-7017178), wood deck on trusses with ceiling and no floor finish.

IMPACT INSULATION CLASSIFICATION	With Ceiling				Without Ceiling	
Finish Floors	Wood Joists and Trusses		Concrete Deck		Concrete Deck	
	Direct Attachment	Sleeper System	Direct Attachment	Sleeper System	Direct Attachment	Sleeper System
None	28	46	43	**61**	28	46
Linoleum or Sheet Vinyl	28	46	43	**61**	28	46
with pad	32	**50**	47	**65**	32	**50**
Vinyl Plank with pad	49	**67**	**64**	**82**	49	**67**
Engineered Wood with pad	32	**50**	47	**65**	32	**50**
Wood Strips	28	46	43	**61**	28	46
with pad	32	**50**	47	**65**	32	**50**
Porcelain, Stone or Ceramic Tile	28	46	43	**61**	28	46
with crack isolation pad	32	**50**	47	**65**	32	**50**
Polished Concrete	32	**50**	47	**65**	32	**50**
Carpet with pad	**53**	**71**	**68**	**86**	**53**	**71**

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 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