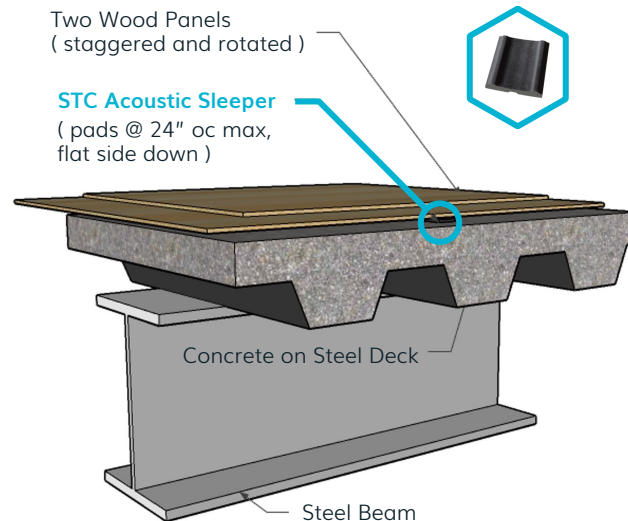



A BETTER SOLUTION FOR FLOOR UNDERLAYMENT

- Simple installation
- Higher acoustical performance
- Lower cost per square foot
- Negative carbon emissions

The STC ACOUSTIC SLEEPER™ is a patented neoprene rubber pad (or strip) for flooring systems that reduces impact noise transmitted to floors below. It is the key component of STC SOUND CONTROL's UL Certified designs for acoustical floor covering systems in wood, concrete, and metal deck construction.




THE PROBLEM OF IMPACT NOISE



A key source of noise is activity from floors above, as sound travels through the floor structure and radiates into the space below. This "impact noise" is measured by a standard called Impact Insulation Classification (IIC).

Different elements of the floor and ceiling construction isolate noise in various amounts - measured by a standard called Δ IIC. However, some form of acoustic insulation (beyond normal deck construction) is generally required to provide additional Δ IIC to bring a building up to code.



In multifamily residential and hotel construction, building codes require an IIC-50 rating.

CHALLENGES OF MARKET STANDARD SOLUTIONS

The most common solution for providing the additional acoustic insulation required by code in concrete deck construction is an **acoustical mat**. However, acoustical mats are continuous – covering the entire floor space. They create several issues for construction including:

- **Full Contact** between the mat and the deck, which increases the amount of impact noise that is transmitted to floors below compared to non-continuous systems;
- **Higher Cost** than is necessary, as the material covers the entire floor space;
- **Inability to Bear Interior Partitions** which means: (1) that mats must be installed after (and cut around) partitions, and (2) that structure-borne vibrations are likely to transmit through partitions to floors below.

Luckily, STC Sound Control
provides a better solution ...

THE ACOUSTIC SLEEPER ADVANTAGE

The STC Acoustic Sleeper system utilizes our patented STC Acoustic Sleeper pads and two layers of wood panels – **removing** continuous mats from deck construction and offering less than 1% contact area between the finish floor and the deck. The result is a solution that is **simple, higher-performance, more cost-effective, and more sustainable** than other common underlayment systems:

SIMPLE



The compressive strength of neoprene pads means that the system can bear interior partitions and be installed **BEFORE** these partitions, requiring minimal cutting.

HIGH-PERFORMANCE



With a Δ IIC-23 rating, and less than 1% of the finish floor area in contact with the deck, the STC Acoustic Sleeper system outperforms continuous mat systems for impact noise isolation.

COST-EFFECTIVE



Material and labor costs for the STC Acoustic Sleeper system are about **1/2** of the cost of continuous acoustical mat systems for concrete decks.

SUSTAINABLE



Thanks to the system's use of wood and small pads (rather than continuous mats), our solution offers net negative carbon emissions, which can help buildings achieve Net Zero goals.

INSTALLATION OVERVIEW (ANY FLOOR FINISH ALLOWED)

Pads are first stapled to the underside of a thin OSB panel, flat side out. Adhesive is then applied to the pads, and the pad-panel assembly is flipped and placed directly on the concrete deck. A second layer of thin OSB panels is adhered to the first, rotated for strength, and staggered to cover the joints. **Any floor finish** can be installed on the STC Acoustic Sleeper system, without the need for additional acoustic mats or treatments.

APPLICATIONS & UL DESIGNS

STC Sound Control has obtained UL Certified 1-hour, 2-hour, and 3-hour fire-rated designs for concrete decks, with exceptional STC & IIC performance, as listed in the table below.

*(IIC with hard surface / IIC with carpet and pad)

TYPE	Fire Rated Designs	STC	IIC*
Concrete (no ceiling)	1- & 2-hour: D902	51	51 / 69
Concrete (w/ ceiling)	1-, 2- & 3-hour: D902	61	64 / 82

WHAT STC CAN DO FOR YOU

The STC Acoustic Sleeper system provides a host of benefits for architects, developers, construction managers, and end-users.

We're here to answer your questions and provide any technical guidance required. If you're interested in learning more about the STC Acoustic Sleeper, just ask for our **Comprehensive Guide to the STC Acoustic Sleeper** brochure via email – or simply reach out to talk with us directly.

**Contact us
 via web, phone, or email
 below.**