



## HOW DOES SPRAY FOAM REDUCE UNWANTED NOISE?

- **Air-Seal Barrier**

Foam expands to fill gaps,  
blocking noise paths

- **Cellular Absorption**

Air pockets absorb and  
convert sound energy



# Sprayman Highlights Acoustic Performance of Spray Foam Insulation for Noise Reduction

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Sprayman is addressing the acoustic performance of spray foam insulation as demand for quieter interior spaces rises. According to the World Health Organization, environmental noise is one of the most significant environmental risks to public health in Europe, contributing to sleep disturbance and other effects for millions of residents. The trend toward open-concept floor plans and multi-family construction has placed greater attention on how insulation materials manage sound transmission between rooms and units.

Sound performance in building assemblies is commonly measured by Sound Transmission Class, or STC, a rating derived from laboratory testing under ASTM E90 for airborne sound transmission loss and calculated according to ASTM E413. Wall assemblies insulated with spray foam can achieve higher STC ratings than uninsulated cavities, since eliminating air gaps and voids is a primary factor in reducing airborne sound transmission. Closed-cell spray foam's expanding, void-filling application is well suited to closing those air pathways as it cures, in addition to its thermal and structural contributions to the assembly.

Sprayman said sound frequently travels through the small gaps and cavities in framing rather than through the structural members themselves, and that because spray foam expands to fill those voids as it cures, it reduces the air pathways that carry noise between spaces, a different mechanism than simply adding mass to a wall.

Research conducted at the National Research Council Canada's acoustics laboratory has examined how air leakage paths within a wall or floor assembly influence airborne sound transmission, finding that sealing those paths is a recognized factor in improving measured sound isolation, separate from material density alone. The ASTM E90 standard provides the controlled laboratory method used to quantify those differences across assemblies.

Sprayman added that for a home office located next to a shared living area, or for units in a multi-family building, the comfort difference often comes down to how well the assembly controls both airborne noise and air leakage paths, and that insulation which also seals the cavity addresses two of the variables that influence perceived quiet in occupied spaces.

Sprayman has published a spray foam soundproofing guide that explains how spray foam insulation contributes to sound control in walls, floors and ceiling cavities, along with general guidance on foam types and application methods for acoustic use cases.

Additional demonstrations of product applications are available through Sprayman on YouTube, where the company hosts videos covering the use of its spray foam insulation, sealants and related tools across a range of construction surfaces, addressing both professional installation and do-it-yourself use.

Sprayman is a Chantilly, Virginia-based provider of spray foam insulation and sealant solutions serving both professionals and DIY enthusiasts. The company's product line includes spray foam insulation, foam sealants, cleaners and lubricants, guns and accessories, and specialty foam products for applications including thermal insulation, sound control, pest exclusion and fire-rated construction.

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For more information about Sprayman, contact the company here: [Sprayman](https://www.sprayman.co) (703) 405-9782 [info@sprayman.co](mailto:info@sprayman.co) Virginia USA 20151

## **Sprayman**

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*polyurethane foams, guns, nozzles, and eco-friendly cleaners.*

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