



Knight-Celotex Fiberboard
a Knight Company

Innovations in Fiber Technology®

Frequently Asked SoundStop® Questions

1. Does SoundStop® diminish the one hour wall system fire rating?

No. Tests conducted by the Gypsum Association report wood fiberboard does not diminish wall system fire ratings. This is documented in the Gypsum Association's 14th Edition of the *Fire Design Manual* – GA File WP 3330 and WP 3510. These observations are further described in the ASTM Special Technical Publication STP 685 *Ten Rules of Fire Endurance*. The Uniform Building Code addresses the fire resistance of walls via footnote 14 to Table 7-B.

2. Can SoundStop® be installed over existing drywall?

Yes. The installation of SoundStop® will significantly enhance the sound deadening effectiveness of drywall. A second layer of drywall must be installed over SoundStop®. Be sure that the proper size drywall nails or screws are used during the installation. Nails and screws must be secured to studs whenever installing drywall over SoundStop®.

3. What is the best way to install SoundStop® in new construction?

Apply SoundStop® vertically with the studs, using proper size drywall nails or screws. First place a drywall nail or screw in each corner of SoundStop® and across the middle of each board. Then apply a bead of acoustical caulk where SoundStop® meets the ceiling, the sides of the walls and the floor. Next, install the drywall horizontally using the standard drywall nailing pattern. Always secure nails or screws to studs.

4. Do I need to use window and door jamb extensions when installing SoundStop® with drywall?

Yes.

5. Can SoundStop® be exposed to the weather?

No. SoundStop® should only be installed when the building is ready for drywall.

6. What is the SoundStop® acoustical rating?

SoundStop® has a minimum Sound Transmission Class (STC) rating of 23. SoundStop® should always be used behind drywall. The combined SoundStop® and drywall system dramatically enhances acoustical benefits.

7. What is the difference between regular fiberboard and SoundStop®?

SoundStop® is a specially formulated fiberboard product with enhanced sound deadening performance. SoundStop® is manufactured for interior use in sound rated wall partitions and floor/ceiling construction. Regular fiberboard sheathing is manufactured for use as an exterior sheathing product.

8. How is SoundStop® made?

SoundStop® is a green product made of recovered hardwood or sugar cane fibers. It is composed of 97% organic materials.

9. Can carpet be installed directly over SoundStop® in a flooring installation?

No. SoundStop® is not a structural product. Wood sleepers measuring 1" x 3" and a 5/8 inch plywood underlayment must be installed on top of the SoundStop® before the carpet is laid.

10. What is the proper installation of SoundStop® for ceilings in new construction?

Use the following installation procedure:

- First put SoundStop® on the ceiling running parallel with the joists.
- Next, put one drywall nail or drywall screw in each corner of the SoundStop® and a row of drywall nails or drywall screws across the middle of each SoundStop® sheet. If the outside edges of SoundStop® are not secure, more nailing may be required.
- Try to use as many full sheets of SoundStop® as possible to minimize the number of seams.
- Install drywall perpendicular to SoundStop® ensuring that no seams of the drywall and SoundStop® line up. This will help isolate the sound.
- When installing drywall ensure that drywall nails or drywall screws are long enough to penetrate the drywall and SoundStop®. Drive into the floor joist at least 3/4".
- The drywall nail or drywall screw length will vary depending on the thickness of the drywall. Multiple layers also will change the length of the drywall nails or drywall screws.
- Run a bead of acoustical caulking around the edges of the ceiling before starting the walls. Make sure proper width mud rings are installed on the electrical outlets before SoundStop® and drywall are installed.

11. How do I install SoundStop® on wall and ceilings over existing drywall?

- First make sure that all light switch and baseboard electric outlet covers are removed.
- Walls must be free of any objects sticking out of the walls and ceiling.
- Proper size mud rings must be installed on electrical boxes before installing SoundStop®.
- Apply SoundStop® by using drywall screws or drywall nails that are long enough to penetrate the wall stud or ceiling joist 3/4".
- Install the drywall in the opposite direction of SoundStop® making sure that no SoundStop® and the drywall seams line up.
- Use regular drywall nailing pattern to install the drywall, making sure that the drywall screws or drywall nails are long enough to penetrate the drywall and SoundStop® and enter the ceiling joist or the wall stud 3/4".

12. What do STC ratings and other sound measurement terms mean?

Sound Transmission Class (STC) is an expression of Sound Transmission Loss (described below under STL) as a single number which indicates performance over a selected range of sound frequencies. The higher the STC, the more efficient the partition or floor will be for reducing sound transmission in most environments. The STC rating for SoundStop® is 23.

STL is a measure of the sound insulating efficiency of partition or floor construction, expressed in decibels. It represents the reduction of energy which occurs when sound is transmitted through a partition or floor. Resulting noise reduction depends on the type of sound and construction design and materials. Intensity of sound is measured in units of decibels (dB). Higher sound intensity yields a higher decibel number.

Noise Reduction Coefficient (NRC) is the accepted index of materials sound absorbing effectiveness. NRC is the mathematical average of four coefficients of absorption-at 250, 500, 1000 and 2000 cycles per second-expressed in the nearest multiple of .05.

13. What is the best way to describe STC in relationship with decibels?

The Sound Transmission Class (STC) rating measures the number of decibels of transmitted sounds a wall or floor reduces over an average of sound frequencies. For example, a standard un-caulked drywall has an STC rating of about 30, which means that the wall reduces the transmitted sound by an average of 30 decibels.

Examples of STC ratings

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| STC 25 | Speech heard through walls or floors |
| 30 | Loud speech fairly well understood |
| 35 | Loud speech heard; not understood |
| 45 | Some loud speech barely heard |
| 50 | Loud speech not heard |