

SoundStop® Sound Stopping Fiberboard

Section 09830

NOTE: This section is based on the product of the Knight-Celotex Company, which is located at:

One Northfield Plaza Suite 400

Northfield, IL. 60093

Internet address: www.knightcelotex.com

For Technical Support

847.716.8030 x1022

PART 1: GENERAL

1.1 SECTION INCLUDES

- A. Furnishing and installation of SoundStop® for walls, ceilings and floor systems as shown on the drawings and specified.

1.2 REFERENCES

- A. ASTM C 208-95 (2001) – Standard Specification for Cellulosic Fiber Insulating Board.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's catalog data and installation instructions for all conditions.
 - 1. All materials shall be manufactured by the Knight-Celotex Company, unless specified otherwise. All materials shall be installed in accordance with printed installation instructions by the Knight-Celotex Company.
- C. Quality Assurance/Control Submittals:
 - 1. Manufacturer's installation and safety data / instructions.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Minimum 50 years experience in producing sound-deadening boards of the type specified herein.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original packages or bundles bearing the brand name of the product.
 - 1. Inspect the materials upon delivery to assure that specified products have been received.
 - 2. Report damaged material immediately to the delivering carrier and note such damage on the carrier's freight bill of lading.
- B. Storage and Handling: Store materials inside, level, under cover. Keep dry, protect from weather and damage from construction operations and other causes. Store at a location where humidity and temperature duplicates those during installation and occupancy in order to stabilize the sheathing.

1.6 PRECAUTIONS

- A. Knight-Celotex Fiberboard products must not be used in close proximity to chimneys, heater units, fireplaces, steam pipes or other surfaces which could provide long term exposure to excessive heat (maximum 212°F) without adequate thermal protection. Consult the appropriate heating appliance manufacturer's instructions before installation.

PART 2: PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer:
Knight-Celotex Company
One Northfield Plaza Suite 400
Northfield , IL. 60093
Internet address: www.knightcelotex.com

(Specifier to select which option from items B and C, delete the unwanted text.)

- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- C. Substitutions: Not permitted.
- D. Provide all sound-deadening boards from a single manufacturer.

2.2 MATERIALS

NOTE: Consult manufacturer for specific recommendations of tested assembly constructions and STC ratings.

- A. Sound-Deadening Boards: SoundStop® physical properties as follows:
1. Panel size: 4'-0" (1200 mm) x 8'-0" (2400 mm) or 9'-0" (2700mm) x 1/2 inch (13 mm)
 2. Density: 17.5-18 pcf (288 kg/cubic m).
 3. Thermal conductivity(k) max.: 0.38
 4. Tensile Strength (parallel to surface) : 150 psi (1,034 kPa).
 4. Tensile Strength (perpendicular to surface) : 600 psi (28.7 kPa).
 5. Water Absorption by Volume, max percent; ASTM C 209 (2-h test):
 - a. 2 hour immersion: 7 percent maximum.
 6. Expansion, 50 to 90 percent relative humidity: 0.5 percent.
 7. Vapor permeance (grains per in., per sf. in. HG pressure differential): 5 (0.287)
 8. R-value: 1.3
 9. Flammability (per NFPA rating): 1 or slight.
 10. Sound Transmission Coefficient: 44-51 (see manufacturers installation methods)
 11. Impact noise rating and Impact isolation class (floors): INR 3-14 and IIC 37-44 (est.)
 12. Moisture content by weight, max.: 10%

2.3 ACCESSORIES

NOTE: Installation accessories are dependent on substrates and installation methods as recommended by the manufacturer SoundStop® must be installed behind drywall or under floor sheathing; select from the following paragraphs accordingly.

- A. Drywall: 1/2" min. applied over exposed surfaces. Offset joints 16" min. (see manufacturer's specific installation guidelines for specified STC, INR or IIC ratings).
- B. Nails: 11 ga, 1 1/2" long galvanized roofing nails, as required to penetrate wood framing 3/4 inch (19 mm) minimum.
- C. Screws:
 - 1. Metal framing, self-tapping 1 1/4" drywall type steel screw. Fastened 16" O.C. along edges and intermediately.

PART 3: EXECUTION

3.1 EXAMINATION

- A. Examine substrates upon which work will be installed.
- B. Verify framing member spacing complies with manufacturer's requirements depending on substrates and installation methods for different sound ratings.
- C. Verify environmental conditions are, and will continue to be, maintained in accordance with manufacturer's recommendations.
- D. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates or conditions.
- E. Starting work by installer is acceptance of substrate and environmental conditions.

3.2 PREPARATION

- A. Follow manufacturer's instructions. Store in a well-ventilated area. Material must be kept dry before installation
 - 1. SoundStop® panels must be installed in a clean, dry condition. DO NOT INSTALL WET PANELS. Panels must be thoroughly dry prior to closing in the structure.
 - 2. Provide proper ventilation and use of respiratory protection as required by the manufacturer. Avoid dust inhalation. Use caution when creating large amounts of dust because of potential explosion hazard. Refer to manufacturer's MSDS data for these and other precautions.

3.3 INSTALLATION

- A. Contact the Knight-Celotex Company for full product installation guides and precautions; including floor installation information.
- B. SoundStop® requires wood wall framing at 16 inches (400mm) o.c, max.. or 24" (600mm) o.c., max. at metal studs. Panel ends are required to align with framing members. Some systems may require blocking for certain STC ratings. See manufacturer's recommendations for required blocking. Verify that appropriate framing section or drawing notes comply.

C. Panel Applications:

1. Wall systems: Apply SoundStop® vertically to framing.
 - a. Wood framed systems: fasten with required nails at 12" O.C. at edges and intermediately.
 - b. Metal framed systems: fasten with required screws at 16" O.C. at edges and intermediately
 - c. Install gypsum wallboard or other panels so panel joints are staggered 16" and do not coincide with sound board joints. Follow gypsum wallboard manufacturer's installation recommendations, or SoundStop® manufacturers instructions for specific STC ratings.

(note to specifier: floor system should not be used under partitions due to compressibility of SoundStop® material)
2. Floor systems: Apply SoundStop® at right angles to sub floor.
 - a. In "floating floor" systems SoundStop® need not be fastened (see manufacturer's recommendations). Overlay with sleepers and underlayment and fasten as required. Install ceiling system per manufacturer for specific STC, IIC and INR ratings
3. Ceiling system: Wood Ceiling / floor joists should be spaced at 16" O.C. Apply SoundStop® board across framing and fasten with required nails at 24" O.C. along edges and intermediately. Apply gypsum board over SoundStop® at right angles and fasten with 1 3/4" GWB-54 annular ring nails, 7" O.C., joints must be taped and cemented.

3.4 ADJUSTING AND CLEANING

- A. Follow manufacturer's instructions for replacement of damaged panels.
- B. During the course of the Work and on completion of the Work, remove excess materials, equipment and debris and dispose of properly away from premises.
- C. Leave Work in clean condition in accordance with Section 01500 Construction Facilities and Temporary Controls.

3.5 PROTECTION

- A. After application of the SoundStop® sheathing, it is recommended that the drywall finish be applied as soon as practical. If applied sheathing should get wet, wait until it is completely dry before application of drywall finish.

END OF SECTION