

SOUND-SHIELD® FORMALDEHYDE-FREE FIBER GLASS INSULATION

For Wood and Steel Frame Construction



At Johns Manville, we are committed to helping you create more comfortable, healthier and energy efficient indoor environments. That's why we revolutionized the building insulation industry by pioneering the development of Formaldehyde-free™ fiber glass building insulation over a decade ago. JM Formaldehyde-free insulation provides excellent thermal and acoustical performance and now utilizes an innovative bio-based binder, made mostly with rapidly renewable plant-based materials, that offers improved handling, easier cutting and less dust than our previous product. Because here at JM, we believe that in every detail, materials matter.

PRODUCT DESCRIPTION

Johns Manville Sound-SHIELD batts are lightweight, sound-absorbent insulation made of long, resilient glass fibers bonded with our bio-based binder. The fiber glass batts are made to fit standard spacing and thickness of wood frame or steel stud construction in residential, commercial, institutional and industrial construction.

APPLICATIONS

- Interior wall sound control – interior walls and floor and ceiling assemblies

INSTALLATION

JM Sound-SHIELD insulation cuts easily with an ordinary utility knife and installs by simply pressing in place between studs or joists. Wire rods, chicken wire or wire is needed to hold floor insulation in place. Sized to fit, 2x4 batts are quickly and easily laid in place over suspended ceiling panels. Other construction practices that assist in controlling the transmitted sound through wood frame or steel stud walls include:

- Caulking and sealing all sound-leakage points.
- Avoiding connecting ducts, junction boxes, piping or other sound carriers from one wall face to the other.
- Interrupting the vibration path between one wall surface to the other (i.e., staggered studs, resilient channels).



PERFORMANCE ADVANTAGES

Sound-SHIELD batts help provide a more comfortable interior environment by reducing transmission of conversations and the sounds of televisions, stereos and ventilation systems. In floor/ceiling assemblies, sound control batts may also help reduce transmission of impact-generated sounds between adjacent areas. Used in conjunction with the caulking of joints and resilient channels for drywall attachment, insulation can increase STC ratings by 8 to 10 points.

Formaldehyde-free – will not off-gas formaldehyde in the indoor environment.

Fire-resistant and Non-combustible – (see Specification Compliance).

Non-corrosive – does not accelerate corrosion of pipes, wiring or metal studs.

Durable – will not rot, mildew or otherwise deteriorate.

Resilient – bonded glass fibers will not pull apart during normal applications and resist settling, breakdown and sagging from vibration.

Flexible – forms readily around corners and curved surfaces.

SOUND-SHIELD® FORMALDEHYDE-FREE FIBER GLASS INSULATION

For Wood and Steel Frame Construction

MEASURING ACOUSTICAL PERFORMANCE

An STC (Sound Transmission Class) is a single number rating used to compare various wall/ceiling/floor constructions. **The higher the STC rating, the greater the acoustic control.** An uninsulated, interior wall has an STC of about 30, which means that the wall reduces the sound transmitted from an adjacent room by about 30 decibels. The National Building Code of Canada requires an STC-50 wall assembly separating multi-family units. This is also a good guideline for many interior walls in single-family homes.

STC Rating Comparison

| STC | Speech Heard Through Walls or Floors |
|-----|---|
| 30 | Loud speech can be understood fairly well |
| 35 | Loud speech audible but not intelligible |
| 42 | Loud speech audible as a murmur |
| 45 | Some loud speech barely audible |
| 48 | Hearing strained to note loud speech |
| 50 | Loud speech not audible |

Wall Noise Reduction Comparison

| Type of Construction | STC Value |
|--------------------------------------|-----------|
| Studs/Drywall | 30 |
| +JM Sound-SHIELD | 34 |
| +Resilient Channels | 46 - 50 |
| Staggered Studs/Insulation | 47 - 52 |
| +Double Drywall Both Sides | 55 - 56 |
| Framed Double Wall/Double Insulation | 57 - 60 |

IIC RATING: IMPACT SOUND TRANSMISSION

The Impact Sound Transmission of a floor or floor/ceiling assembly is measured in accordance with ASTM E 492. The test panel separates two reverberation rooms. A standardized tapping machine is placed on the floor and the impact-generated sound is transmitted to the room below. The sound pressure levels are electronically analyzed to establish a single number rating for the construction identified as the "Impact Isolation Class" or "IIC."

The higher the IIC rating, the greater the isolation of impact-generated sound between the two rooms.

SOUND-SHIELD® FORMALDEHYDE-FREE FIBER GLASS INSULATION

For Wood and Steel Frame Construction

AVAILABLE FORMS*

| WOOD FRAME INSULATION | Thickness | | Width | | Length | |
|-----------------------|-----------|------|-------|------|--------|------|
| | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| | 70 | 2.75 | 406 | 16 | 1194 | 47 |
| | 102 | 4 | 381 | 15 | 1194 | 47 |

| STEEL FRAME INSULATION | Thickness | | Width | | Length | |
|------------------------|-----------|------|-------|------|--------|------|
| | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| | 70 | 2.75 | 406 | 16 | 1219 | 48 |
| | 102 | 4 | 406 | 16 | 1219 | 48 |

RECOMMENDED STORAGE AND TRANSPORT

Store insulation indoors. Keep insulation clean and dry at all times. When transporting, cover completely with a waterproof tarpaulin as necessary.

SPECIFICATION COMPLIANCE AND FIRE SAFETY

CAN/ULC-S702-09, Type 1; CAN/ULC-S102, flame spread 25 or less, smoke developed 50 or less.

LIMITATIONS OF USE

Check applicable building codes.

PACKAGING

JM Sound-SHIELD insulation is compression-packaged for savings in storage and freight costs.



**Contains 50%
Recycled Bottle Glass**

Properly insulating a structure using Johns Manville building insulation helps preserve our environment by reducing energy consumption for heating and cooling, reducing the pollution resulting from fuel burning, reducing the emission of hazardous air pollutants during manufacturing and reducing waste through the utilization of recycled materials.

Visit our website at specJM.com/canada or call **1-800-661-9553**.

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of Sound-SHIELD fiber glass insulation listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the sales office nearest you for current information. All Johns Manville products are sold subject to Johns Manville's Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville Limited Warranty and Limitation of Remedy or for information on other Johns Manville thermal and acoustical insulation and systems, visit the website or call the 800 number above.

*For thicknesses or sizes not shown above, consult your Johns Manville Canada Sales Office.

DISTRIBUTED BY:

JM Johns Manville

Copyright © 2012, Johns Manville, Inc. All Rights Reserved.
CAN-343 09/12