

Impact Insulation Class (IIC)

Impact noise comes from a person walking or running, an object falling on the floor or moving furniture.

Sound vibrations are transmitted through the building structure, joists and walls, creating discomfort and noise pollution.

Impact sound is measured in terms of impact sound insulation Class (IIC).

IIC is an index that measures the reduction of impact sound through a floor or ceiling. The higher the index, the better the sound insulation and soundproofing.

Why use SONOPAN X

- Absorbs both impact and airborne noise in the floor system
- Lightweight
- Easy to cut and install
- Maintains a continuous sound barrier
- Manufactured with 100% recycled wood
- Non-toxic
- Affordable



SONOPAN X[®]

Noise STOP Technology

Properties	Standard Limits	Nominal Value
Transverse load at breakage	ASTM C-209	≥ 3.57 kg ≥ 7.87 lb
Tensile strength perpendicular to surface	ASTM C-209	≥ 0.24 kg / cm ² ≥ 3.41 lb / in ²
Water absorption	ASTM C-209	5 %
Linear expansion	ASTM C-209	0.13%
Compressive strength (10% deformation)	ASTM C-165	3.38 kg / cm ² 48.07 lb / in ²
"R" factor / inch (1")	ASTM C-518	R = 1.5 RSI = 0.26

Physical Properties	Metric	Imperial
Density	256 kg / m ³	16 lbs / ft ³
Dimensions	1.22 m x 1.22 m	48 inch x 48 inch
Covering per sheet	1.49 m ²	16 ft ²
Thickness	11 mm	7/16 inch
Weight per panel	4.24 kg	9.33 lbs
Sheets per skid	110 sheets	

Ecological Properties
 No VOC (g / l.) - Volatile organic compounds!
 100% recycled and recyclable wood fiber

¹ - Some variations that can be observed in results depending on the type of raw material used.



Ideal for soundproofing floors:

- Condos • Multi-residential • Townhouses • Rental units

For any inquiries related to the installation or application of **SONOPAN X**. Please email us at info@sonopan.com or call 1-800-561-4279



SONOPAN X[®]

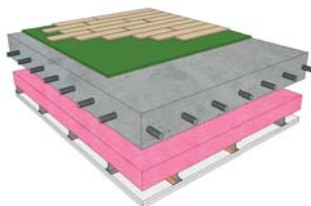
Noise STOP Technology

SUPERIOR SOUNDPROOFING FOR IMPACT NOISE



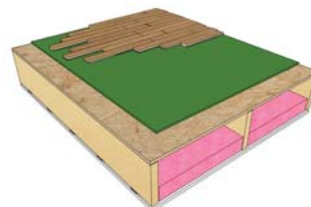
Floor Assemblies

Concrete slab construction - Engineered FIIC 56



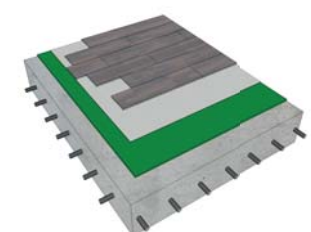
8.4 mm (21/64") Engineered floor
 11 mm (7/16") **SONOPAN X**[®]
 152 mm (6") Concrete slab
 305 mm (12") Drywall hanger system
 88.9 mm (3.5") Insulation
 5.9 mm (5/8") Gypsum Type X

Wood joist construction - Engineered STC 53 IIC 51



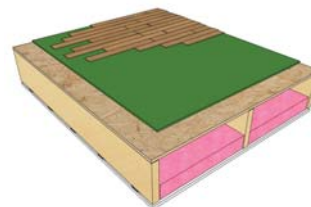
8.4 mm (21/64") Engineered floor
 11 mm (7/16") **SONOPAN X**[®]
 51 mm x 254 mm (2"x10") Joist
 88.9 mm (3.5") Insulation
 12.7 mm (1/2") Resilient channel
 15.9 mm (5/8") Gypsum Type X

Concrete slab construction - Laminate FIIC 59



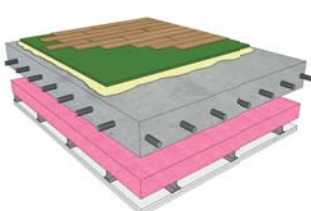
12 mm (1/2") Laminate flooring
 Underlay membrane
 11 mm (7/16") **SONOPAN X**[®]
 205 mm (8") Concrete slab

Wood joist construction - Vinyl STC 53 IIC 51



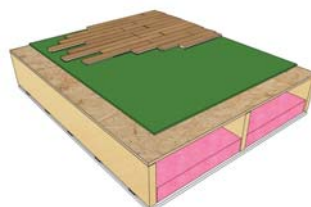
5.5 mm (13/64") SPC vinyl plank
 11 mm (7/16") **SONOPAN X**[®]
 51 mm x 254 mm (2"x10") Joist
 88.9 mm (3.5") Insulation
 12.7 mm (1/2") Resilient channel
 15.9 mm (5/8") Gypsum Type X

Concrete slab construction - Vinyl STC 62 IIC 66



5.5 mm (13/64") SPC vinyl plank
 11 mm (7/16") **SONOPAN X**[®]
 Acrylic based floor glue
 152 mm (6") Concrete slab
 305 mm (12") Drywall hanger system
 88.9 mm (3.5") Insulation
 5.9 mm (5/8") Gypsum Type X

Wood joist construction - Hardwood STC 56 IIC 57



19 mm (3/4") Hardwood floor
 11 mm (7/16") **SONOPAN X**[®]
 51 mm x 254 mm (2"x10") Joist
 88.9 mm (3.5") Insulation
 12.7 mm (1/2") Resilient channel
 15.9 mm (5/8") Gypsum Type X

Installation

Site conditions and **SONOPAN X**[®] conditioning

SONOPAN X[®] acoustic panels are manufactured from natural recycled wood fibres.

This information is available on **SONOPAN X**[®]'s page at: www.sonopan.com and www.mslfibre.com

Before installing **SONOPAN X**[®] and finished flooring, all openings should be installed and closed: doors, windows, garage doors, etc. The **SONOPAN X**[®] acoustic panels should be stored on job site, always inside and laid flat.

Preparation (concrete and wooden subfloor)

The underlayment for **SONOPAN X**[®] should be thoroughly cleaned, free from any loose debris, perfectly flat and level. The unevenness degree accepted is 5mm (3/16") on 3m (10') length. Uneven spots should be either grinded down or filled with appropriate levelling compound. When installing **SONOPAN X**[®] on concrete subfloor, ensure that the concrete is perfectly dried.

When installing **SONOPAN X**[®] on a wooden subfloor, this subfloor should be a minimum thickness of 5/8" (16mm) with tongue and groove side edges type. Ensure the wooden subfloor (plywood or other wood panel) is firmly fixed to the floor structure to avoid panel's movement and creaking.

SONOPAN X[®] panels should be staggered 24 inches (610 mm) from each other to prevent end-joint alignment effect. Ensure that joints between **SONOPAN X**[®] acoustic panels are as tight as possible. Fill the perimeter cavity with **SONOPAN X**[®] acoustic caulking (or equivalent) up to the finished floor's level.

Installation on wood subfloors

SONOPAN X[®] panels can be installed floating or stapled. If stapled, the panels can be stapled down using 9 staples evenly spaced 3" from the edges and one in the middle for each panel. Staples should be countersunk to a depth of 1/16" depth below the surface. The staple should be at least 7/16" wide and 1" long.

Installing over concrete

When installing **SONOPAN X**[®] panels over concrete the panels can be floating or glued using a urethane based adhesive. Adhere **SONOPAN X**[®] to substrate using solvent-free adhesive. A 3/16" (5mm) V-Notch trowel should be used (as per drawing). When applying adhesive, hold trowel at a 45-degree angle minimum to maximize spreading. Adhesive should not be applied if room temperature is below 70°F (20°C). Let dry for at least 24 hours before installing the floor covering.

WARNING: adhesives containing solvents are not compatible with **SONOPAN X**[®] acoustic panels.

Laminate flooring

Laminate flooring is suitable for installing over **SONOPAN X**[®]. Please refer to the preceding Subfloor installation instructions Wood or Concrete. Always proceed in accordance with the flooring manufacturer's recommendations.

Solid Hardwood flooring

When installing a conventional hardwood flooring (mechanically fastened), the hardwood should be stapled to the wooden subfloor using minimum 1 3/4" hardwood flooring cleats. Hardwood underlayment paper should be installed over the **SONOPAN X**[®] but under the hardwood.

Engineered hardwood flooring

Engineered Hardwood flooring is suitable for installing over **SONOPAN X**[®]. If it is designed to be floated or glued to itself. If full spread glue is required. An additional layer of plywood stapled to and through **SONOPAN X**[®] is required. Please refer to the preceding Subfloor installation instructions. Wood or Concrete. Always proceed in accordance with the flooring manufacturer's recommendations.

SPC vinyl plank flooring

SPC vinyl plank flooring is suitable for installing over **SONOPAN X**[®]. Please refer to the preceding Subfloor installation instructions. Wood or Concrete. Always proceed in accordance with the flooring manufacturer's recommendations.

Note

These instructions correspond to residential and light commercial applications. For additional details, contact your local MSL representative.

*Adding **SONOPAN**[®] panels to the ceiling will help to increase the level of STC soundproofing by a few additional points.

MSL

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