Sound Transmission Class (STC)

These are the decibels (dB) which express the unit of intensity, pressure or sound power. They are calculated by a logarithmic relationship between the measured value and the reference value. Complete silence corresponds to a sound level of 0 dB, a business office in operation, 60 dB, a car in circulation, 80 dB and a plane taking off, approximately 100 dB. The noise level between the transmitter and the receiver should decrease with distance and obstacles. Between two dwellings, a wall or ceiling can be used to reduce sound

Suppose you are in a room next to an other one where two people are chatting. Depending the construction of the wall and its acoustic performance, the STC indices indicate what you can hear ...

A normal voice discussion is audible and

STC 40:

A loud voice is audible but unintelligible.

STC 45:

A loud discussion is barely audible.

STC 50:

A loud voice is almost no longer heard.

A loud discussion is inaudible.

A sound transmission class (STC) is calculated in decibels. The higher this index, the higher the level of perceived noise is attenuated.



BENEFITS SUMMARY OF SONOPAN PANELS

- Not expensive;
- Absorb a wider range of sound frequencies:
- With stable physical dimensions;
- Lightweight, easy to cut and install;
- Offering a continuous acoustic barrier;
- Made with recycled wood fibers;
- Non toxic:
- Available at most building materials retailers:

FOR OPTIMAL SOUNDPROOFING

SONOPAN is an environmentally friendly high-performance soundproofing panel with patented technology. Provided with dimensions of cavities and various depths on both sides. SONOPAN absorbs a greater frequency range thereof, significantly reducing the transmission of noise and vibration from one room to another. **SONOPAN** panel is the best choice for your soundproofing projects such as multi-housing. condominiums, two-generation building, home theaters, music studios, bath rooms, etc.

Installation guide for walls and ceilings



Fasten **SONOPAN** to joists (or existing drywall if retrofitting) using drywall screws every 12" at the perimeter and centre of the panel.



Fasten **SONOPAN** to studs (or existing drywall if retrofitting) using drywall screws every 12" at the perimeter and centre of the panel butting the panel up against the SONOPAN on the ceiling.



asten the resilient channels perpendicular to the joists every 12" and according to the manufacturer's

- i install the 1st channel 6" from the wall
- ii install the following channels 12" apart
- iii install the last channel 6" from the opposite wall



Fasten the first row of drywall to the resilient channels using drywall screws, according to the manufacturer's



Fasten the resilient channels perpendicular to the studs every 24" and according to the manufacturer's

- i install the 1st channel 2" from the ground ii - install the following channels 24" apart
- iii install the last channel 6" from the ceiling



Fasten the first row of drywall to the resilient channels using drywall screws according to the manufacturer's

Step 5 (Walls and ceiling)

Install 2nd row of drywall starting from the ceiling and finishing with the walls, according to the manufacturer's specifications.

Installation Tips:

Apply acoustical sealant to the perimeter of each SONOpan panel as well as to the perimeter of walls and ceilings. Seal any gaps with acoustical caulking.

Always ensure that **SONOpan** is protected from the elements during installation and until project is complete

SONOpan cuts with a circular saw or very sharp knife, if a knife is used cut entirely though the panel, do not score and



SONOPAN Noise Stop Technology™

Properties	Standards	Nominal values
Transverse load at rupture	ASTM C-209	6.80 kg 15 lb
Tensile Strength parallel to surface	ASTM C-209	4.28 kg / cm ² 60.7 lb / po ²
Water absorption	ASTM C-209	4% P / V max.
Linear expansion	ASTM C-209	0.13%
Compressive Strength (10% deformation)	ASTM C-165	1.41 kg / cm² 20 lb / po²
Thermal value	ASTM C-518	R = 2.45 RSI = 0.43
Physical properties	Metric	Imperial
Density	224.26 kg / m³	14 lb / pi ³

1.22 m x 2.44 m

2.97 m²

11.5 kg

65 panneaux

Environmental properties:

0% - VOC (g/l) – Volatile organic compounds 100% recycled and recyclable fibres

48 no x 96 no

32 pi²

3/4 po

26 lb

Approved by CCMC #12419-R

Dimensions

Area covered per panel

Weight per panel

Number of panel / skid



Ideal for projects including:

- Movie theaters
 Music studios
 Adioining walls
- Condos Multi-Dwellings Townhouses Bathrooms
- Garages Basements Conference rooms and more..



SONOPAN

Noise Stop Technology™

THE FIRST CHOICE FOR YOUR SOUNDPROOFING **PROJECTS**









STC 51 New Construction



Type X Drywall 15.9 mm (5/8") **SONOpan** 19 mm (3/4") Wood studs 50.9 mm x 139.7 mm

(2 "x 6") at 610 mm (24") c.c. **SONOpan** 19 mm (3/4")

Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

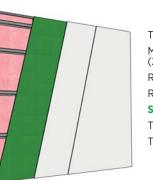




Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8") **SONOpan** 19 mm (3/4") Wood studs 50.9 mm x 139.7 mm (2 "x 6") at 610 mm (24") c.c. **SONOpan** 19 mm (3/4") Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

New Construction

STC 58* ew Construction



Type X Drywall 15.9 mm (5/8") Metal studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c. R-12 Batt Insulation

Resilient channel at 610 mm (24") c.c. **SONOpan** 19 mm (3/4")

Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

STC 68 lew Construction



Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8") Wood studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c. R-12 Batt Insulation

25.4 mm (1") Air space R-12 Batt Insulation Wood studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c. **SONOpan** 19 mm (3/4") Type X Drywall 15.9 mm (5/8")

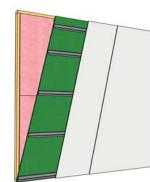
Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8") Metal studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c. R-12 Batt Insulation

25.4 mm (1") Air space

R-12 Batt Insulation Metal studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c. **SONOpan** 19 mm (3/4") Type X Drywall 15.9 mm (5/8")

STC 68*

New Construction



Type X Drywall 15.9 mm (5/8") Wood studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c.

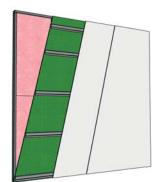
STC 56

R-12 Batt Insulation

SONOpan 19 mm (3/4") Resilient Channels at 610 mm (24") c.c. Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

New Construction

STC 56*



Type X Drywall 15.9 mm (5/8") Metal studs 50.9 mm x 101.6 mm (2" x 4") at 610 mm (24") c.c. R-12 Batt Insulation

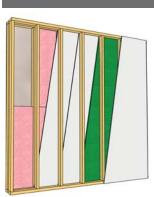
SONOpan 19 mm (3/4")

Resilient Channels at 610 mm (24") c.c. Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

Partition wall (new construction)¹

FITS 56

STC 58



Type X Drywall 15.9 mm (5/8") Wood or Metal studs 50.9 mm x 101.6 mm (2" x 4") at

Type X Drywall 15.9 mm (5/8")

(2" x 4") at 610 mm (24") c.c.

Type X Drywall 15.9 mm (5/8")

Type X Drywall 15.9 mm (5/8")

R-12 Batt Insulation

SONOpan 19 mm (3/4")

Wood studs 50.9 mm x 101.6 mm

Resilient channel at 610 mm (24") c.c.

406 mm (16") c.c. R-12 Batt Insulation

Type X Drywall 15.9 mm (5/8")

Type X Drywall 15.9 mm (5/8") 25.4 mm (1") Air space

R-12 Batt Insulation

Wood or Metal studs 50.9 mm x 101.6 mm (2" x 4") at 406 mm (16") c.c.

SONOpan 19 mm (3/4")

Type X Drywall 15.9 mm (5/8")

for suggested assemblies in this brochure, confirming ound transmission indices (FSTC), the mention "F" mean Field" for measurements taken on site.

ystems offering a fire resistance of 60 minutes accordin | CAN / ULC S-101:

UL designs: U309, U314, U423, U465 ULC designs: W301, W415, and W453.

This assembly can be applied to a load-bearing wall, in ccordance with the National Building Code of Canada 2015) for this type of construction. Partition wall (new construction)

FSTC 57

STC 56

I-joist 300 mm (12")

Resilient Channels

at 610 mm (24") c.c.

Batt Insulation (R-20 min.)

Type X Drywall 15.9 mm (5/8")

Type X Drywall 15.9 mm (5/8")

SONOpan 19 mm (3/4")



lew Construction

Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8") Wood or Metal studs 50.9 mm x 101.6 mm (2" x 4") at 406 mm (16") c.c. (non-isolated)

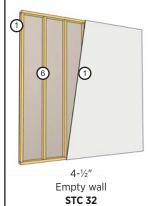
12.7 mm (1/2") Air space

SONOpan 19 mm (3/4") Concrete block wall 203.2 mm (8")

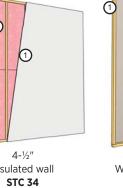
SONOpan 19 mm (3/4")

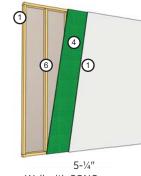
12.7 mm (1/2") Air space Wood or Metal studs 50.9 mm x 101.6 mm (2" x 4") at 406 mm (16") c.c. (non-isolated) Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

Comparative table, interior walls, wood or metal studs (New construction)

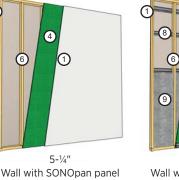


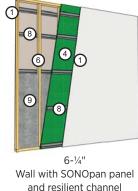
Insulated wall

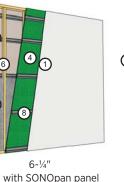


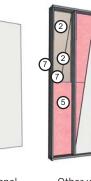


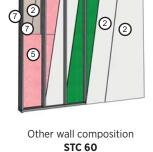
(without insulation)











STC 60

Drywall

Existing wall:



50.9 mm x 101.6 mm (2" x 4") aux 406 mm (16") c.c. R-12 Batt Insulation Drywall Adding:

SONOpan 19 mm (3/4")

Wood or metal studs

Resilient Channels at 610 mm (24") c.c. Type X Drywall 15.9 mm (5/8") Walls with addition Type X Drywall 15.9 mm (5/8") **STC 56** (Estimated value)

SUGGESTED RENOVATION ASSEMBLY

Ceilling with addition STC56 (Estimated value)

Existing ceilling: Open joist 300 mm (12") Batt Insulation (R-20 min.) Drywall

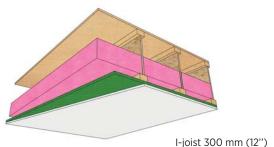
Adding:

SONOpan 19 mm (3/4") Resilient Channels at 610 mm (24") c.c. Type X Drywall 15.9 mm (5/8") Type X Drywall 15.9 mm (5/8")

> *The indicated STC / FSTC performances on drawings can vary according to the physical properties of the materials in the assembly and their installation.

w Construction

w Construction



Batt Insulation (R-20 min.) **SONOpan** 19 mm (3/4") Type X Drywall 15.9 mm

STC 50*