

SOUND DEADENING BOARD



A significant product to help eliminate noise pollution

Introduction

The aim of sound conditioning is reduction of distracting or irritating noise rather than "sound proofing" to totally eliminate sound.

Both the building materials and necessary techniques for increased privacy are available now to the builder who wishes to offer this significant tenant benefit to noise pollution conscious buyers.

Economically preventing noise transmission through an interior wall was not an easy problem to solve. Thick walls of dense materials can stop sound; but, at a high cost and with structural problems created by unusually heavy walls.

What is...Sound Deadening Board?

Sound Deadening Board is a specially made structural fiber board product designed for use in wall systems where sound control between rooms is desired.

It is usually identified with the words "SOUND DEADENING BOARD" on each sheet or package to distinguish it from other fiber board products.

Take the "PARTY" Out of Party Walls

Lightweight panels of Sound Deadening Board are specially made to trap noise passing through walls from room-to-room. The 1/2"-thick 4' x 8' structural product works on the principle of combining dissimilar materials so that each does a different acoustical job. Sound Deadening Board is designed for use under gypsum wallboard. The heavy wallboard provides mass which retards the passage of sound, while the lightweight Sound Deadening Board panels act acoustically as an absorptive material which traps noise.

Tests at a nationally known acoustical laboratory have shown that when Sound Deadening Board is combined with gypsum wallboard, the resulting wall is acoustically appreciably superior to walls made with:

- Two layers of Sound Deadening Insulation Board alone.
- Two layers of gypsum wallboard alone.

On-Site Practices

It should be understood that the STC values obtained in actual practice will depend on many other construction factors besides the design of the partition itself.

Attention must be paid to workmanship and construction details, and to the acoustical characteristics of the adjacent floor, wall, and ceiling structures which can provide "flanking paths" for sound transmission around a given partition. To be most effective, the perimeters of the walls must be sealed to avoid sound leaks.

Sound Transmission Class STC

Sound Transmission Class (STC) is widely used as a performance criteria. STC provides a single number combining the wide range range of frequency data points. Many of the new types of lightweight walls have low values in the middle frequency range as compared to the old solid masonry walls.

How do conventional walls using 2" x 4" stud framing rate by STC? Based upon tests, a typical based wall of gypsum wallboard, using 2" x 3" or 2" x 4" studs will have an STC of only 38.

SOUND TRANSMISSION CLASS					
STC numbers have been adopted by acoustical engineers as a measure of the resistance of a building element such as a wall to the passage of sound. The higher the number, the better the sound barrier. The following examples show the approximate effectiveness of walls with varying STC numbers.					
30	35	42	45	48	50
Loud speech can be understood fairly well	Loud speech audible but not intelligible	Loud speech audible as a murmur	Some loud speech barely audible	Must strain to hear loud speech	Loud speech not audible

Details

Variations can be adapted from these basic wall systems

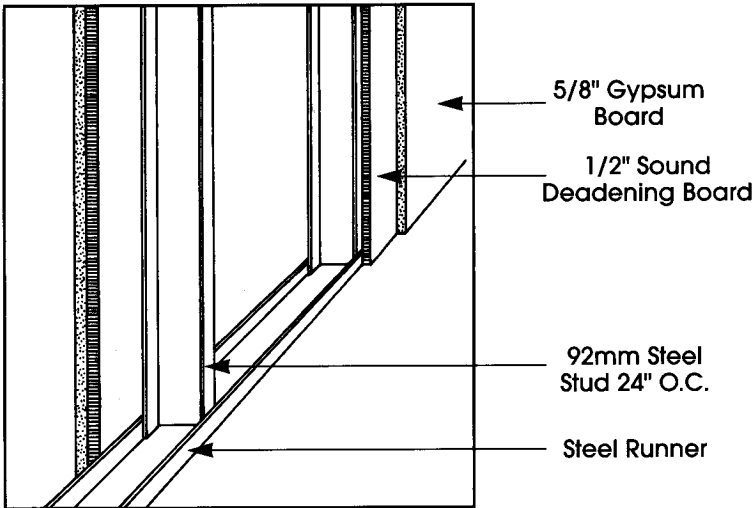


FIG A STC 49 Steel Studs 24" O.C.

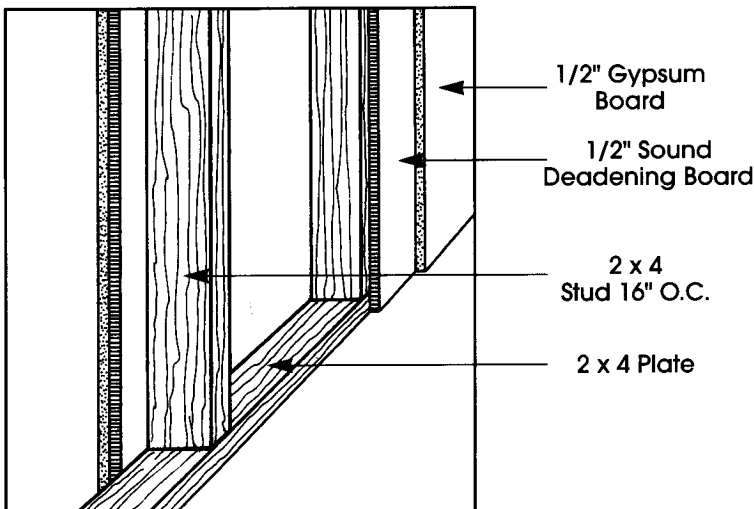


FIG B STC 39 2 x 4 Studs 16" O.C.

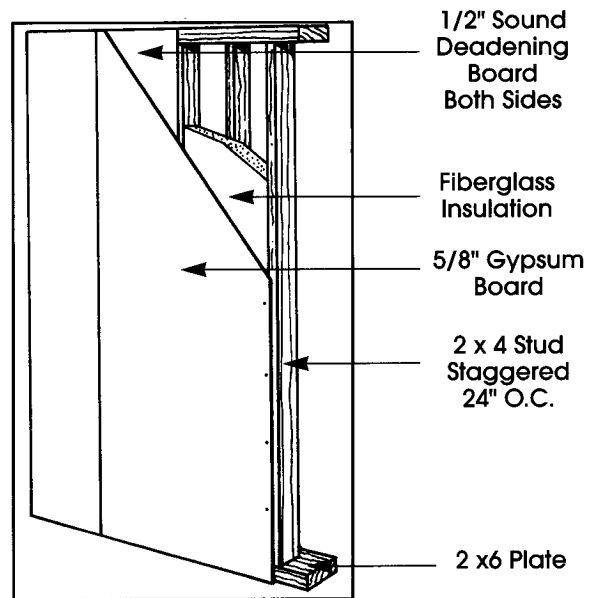


FIG C STC 56 2 x 4 Studs Staggered 24" O.C.

Additional product details may be obtained from:

EMCO Limited Building Products
LaSalle, Quebec Canada
 (514) 364-1387
 FAX: (514) 364-4487
 bric@emcoltd.com
 John W. Ricketts, President

IKO Industries, Ltd.
Calgary, Alberta Canada
 (905) 457-5321
 FAX: (905) 450-3620
 andy.lodge@iko.com
 Andy Lodge, R&D Manager

International Fibreboard, Inc.
Winnipeg, Manitoba Canada
 (204) 654-0555
 FAX (204) 654-0606
 ifi@mts.net
 Mark Smerchanski, President

Materiaux Cascades, Inc.
Louiseville, Quebec Canada
 (800) 561-4279
 FAX: (819) 228-2845
 msmith@cascades.com
 Michel Smith, Plant General Manager

Georgia-Pacific Corporation
Atlanta, GA
 (800) 879-7781
 FAX: (404) 230-7712
 reslate@gapac.com
 Rod Slate, Sales Manager

International Bildrite, Inc.
International Falls, MN
 Sales Office
 (763) 509-9926
 MILL FAX: (763) 283-3905
 RTB11625MPLS@aol.com
 Bob Boyer, Sales Manager

Masonite Corporation
Chicago, IL
 (800) 257-7885
 FAX (312) 750-1233
 nick.pavlovich@ipaper.com
 Nick Pavlovich, Sales & Marketing
 Manager - Industrial Products

Temple
Diboll, TX
 (800) 231-6060
 FAX: (800) 426-7382
 gkeeling@temple.com
 Gary Keeling, Product Manager