



Wall assemblies for classrooms - Sound Transmission
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ACCEPTABLE WALL ASSEMBLIES

(A) - Typical installation

Doubled layer drywall both sides with batt insulation	
Metal Stud 92mm	40
Batt insulation	+4
Doubled 16mm drywall both sides	+6
	49 STC

(B)

Doubled layer drywall both sides with resilient channel (one side)	
Metal Stud 92mm	40
Resilient channel one side	+5
Doubled 16mm drywall both sides	+6
	51 STC

(C)

One layer drywall each side with resilient channel and batt insulation	
Metal Stud 92mm	40
Batt insulation	+4
Resilient channel one side	+5
	49 STC

COMPONENT SPECS

STUDS	92mm installed 400mm / 16" on centre, min. 18 gauge steel (to support blackboards)
CHANNEL	Resilient channel 24" on center for 16" on centre framing
INSUALTION	Batt insulation 75mm THERMAFIBRE SAFB
JOINTS	Staggered
PERIMETER	Caulked

ASSEMBLY COMPONENTS

Sound Transmission Coefficient	STC	
2x4 wood stud, 5/8" drywall each side	32-34	
Metal framing, 92mm	+6	increase in STC by component
Batt insulation 3 5/8" / 92mm	+4	
Resilient Channel	+5	(laboratory installation achieves +10)
Doubled 5/8" drywall one side	+3	
Doubled 5/8" drywall both sides	+6	
Target assembly STC	50	
2x4 stud	=	1 1/2" x 3 5/8" actual dimensions
3 5/8"	=	92mm
5/8"	=	16mm