Fire and Sound Resistance Tables

Table 9.10.3.1.-A

Fire and Sound Resistance of Walls⁽¹⁾

T	Wall	Duratifica	Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
Wood Studs	W1	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on each side 			GG00032A
Single Row	W1a	W1 with • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	36
 Loadbearing or Non-Loadbearing 	W1b	W1 with • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min [1 h ⁽⁸⁾]	45 min [1 h ⁽⁸⁾]	34
	W1c	W1 with • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	30 min	30 min [45 min ⁽⁸⁾]	32
	W1d	W1 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	32
	W1e	W1 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	45 min	32
	W2	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. with or without absorptive material 2 layers of gypsum board on each side 	7		GG00033A
	W2a	W2 with • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	2 h	38
	W2b	W2 with • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	1.5 h	38
	W2c	W2 with • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm regular gypsum board ⁽⁷⁾	45 min	1 h	36
	W2d	W2 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	2 h	36
	W2e	W2 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	1.5 h	35

Table 9.10.3.1.-A (continued) Fire and Sound Resistance of Walls⁽¹⁾ tance 9.10.3.1 (1) Articles 9.11.1.3. and 9

	Wall	Description	Fire-Resista	Fire-Resistance Rating ⁽²⁾⁽³⁾	
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	W2f	W2 with • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	45 min	1 h	34
	W3	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels on one side spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on each side 			GG00034A
	W3a	W3 with • studs spaced 400 mm o.c. • 15.9 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	45
	W3b	W3 with • studs spaced 600 mm o.c. • 15.9 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	48
	W3c	W3 with • studs spaced 400 mm or 600 mm o.c. • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	45 min	43
	W4	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels on one side spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on resilient metal channel side 1 layer of gypsum board on other side 			GG00035A
	W4a	W4 with • studs spaced 400 mm o.c. • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h [1.5 h ⁽⁸⁾]	51
	W4b	W4 with • studs spaced 600 mm o.c. • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h [1.5 h ⁽⁸⁾]	54
	W4c	W4 with • studs spaced 400 mm o.c. • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min [1 h ⁽⁸⁾]	1 h	49
	W4d	W4 with • studs spaced 600 mm o.c. • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min [1 h ⁽⁸⁾]	1 h	53
	W5	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels on one side spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on resilient metal channel side 2 layers of gypsum board on other side 			GG00036A

	Wall	Description	Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	W5a	W5 with • studs spaced 400 mm o.c. • 15.9 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	51
	W5b	W5 with • studs spaced 600 mm o.c. • 15.9 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	54
	W5c	W5 with • studs spaced 400 mm o.c. • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	49
	W5d	W5 with • studs spaced 600 mm o.c. • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	53
	W6	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. with or without absorptive material resilient metal channels on one side 2 layers of gypsum board on each side 	T M		GG00037A
	W6a	 W6 with studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1.5 h	2 h	55
	W6b	 W6 with studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1.5 h	2 h	58
	W6c	 W6 with studs spaced 400 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	53
	W6d	 W6 with studs spaced 400 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	1.5 h	55
	W6e	 W6 with studs spaced 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	55

	Wall	Description	Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	W6f	 W6 with studs spaced 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	58
	W6g	 W6 with studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board⁽⁷⁾ 	45 min	1 h	50
	W6h	 W6 with studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board⁽⁷⁾ 	45 min	1 h	52
	W6i	 W6 with studs spaced 400 mm or 600 mm o.c. no absorptive material resilient metal channels spaced 400 mm or 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1.5 h	2 h	47
	W6j	W6 with • studs spaced 400 mm or 600 mm o.c. • no absorptive material • resilient metal channels spaced 400 mm or 600 mm o.c. • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	1.5 h	46
 Wood Studs Two Rows Staggered on 38 mm × 140 mm Plate 	W7	 two rows 38 mm × 89 mm studs each spaced 400 mm or 600 mm o.c. staggered on common 38 mm × 140 mm plate 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 1 layer of gypsum board on each side 			GG00038A
 Loadbearing or Non-Loadbearing 	W7a	W7 with • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	47
	W7b	W7 with • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min [1 h ⁽⁸⁾]	45 min [1 h ⁽⁸⁾]	45
	W7c	W7 with 12.7 mm regular gypsum board⁽⁷⁾⁽⁹⁾ 	30 min	30 min [45 min ⁽⁸⁾]	42

	Wall	Description	Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	W8	 Two rows 38 mm × 89 mm studs each spaced 400 mm or 600 mm o.c. staggered on common 38 mm × 140 mm plate 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 2 layers of gypsum board on one side 1 layer of gypsum board on other side 			GG00039A
	W8a	W8 with • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1.5 h	52
	W8b	W8 with • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	50
	W9	 two rows 38 mm × 89 mm studs each spaced 400 mm or 600 mm o.c. staggered on common 38 mm × 140 mm plate with or without absorptive material 2 layers of gypsum board on each side 			GG00040A
	W9a	 W9 with 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 15.9 mm Type X gypsum board⁽⁷⁾ 	1.5 h	2 h	56
	W9b	 W9 with 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	55
	W9c	 W9 with 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 12.7 mm regular gypsum board⁽⁷⁾ 	45 min	1 h	53
	W9d	W9 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	2 h	48
	W10	 two rows 38 mm × 89 mm studs each spaced 400 mm or 600 mm o.c. staggered on common 38 mm × 140 mm plate with or without absorptive material resilient metal channels on one side spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on each side 			GG00041A
	W10a	 W10 with 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 15.9 mm Type X gypsum board⁽⁷⁾ 	1.5 h	2 h	62

Table 9.10.3.1.-A (continued) Fire and Sound Resistance of Walls⁽¹⁾ ptence 9.10.3.1 (1)

	Wall		Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	W10b	 W10 with 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	60
	W10c	W10 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	2 h	50
	W10d	 W10 with no absorptive material 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	48
	W11	 two rows 38 mm × 89 mm studs each spaced 400 mm or 600 mm o.c. staggered on common 38 mm × 140 mm plate 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ resilient metal channels on one side spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on resilient channel side 1 layer of gypsum board on other side 			GG00042A
	W11a	W11 with 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	1 h	56
	W11b	W11 with 12.7 mm Type X gypsum board⁽⁷⁾ 	45 min [1 h ⁽⁸⁾]	1 h	54
	W12	 two rows 38 mm × 89 mm studs each spaced 400 mm or 600 mm o.c. staggered on common 38 mm × 140 mm plate 89 mm thick absorptive material on one side or 65 mm thick on each side⁽⁶⁾ resilient metal channels on one side spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on resilient metal channel side 2 layers of gypsum board on other side 			GG00043A
	W12a	W12 with 15.9 mm Type X gypsum board⁽⁷⁾ 	45 min	1 h	56
	W12b	W12 with • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	54
 Wood Studs Two Rows on Separate Plates 	W13	 two rows 38 mm × 89 mm studs, each spaced 400 mm or 600 mm o.c. on separate 38 mm × 89 mm plates set 25 mm apart with or without absorptive material 1 layer of gypsum board on each side 			GG00044A

_	Wall		Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
 Loadbearing or Non-Loadbearing 	W13a	W13 with • 89 mm thick absorptive material on each side ⁽⁶⁾⁽¹⁰⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	57
	W13b	W13 with • 89 mm thick absorptive material on each side ⁽⁶⁾⁽¹⁰⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min [1 h ⁽⁸⁾]	45 min [1 h ⁽⁸⁾]	57
	W13c	W13 with • 89 mm thick absorptive material on one side only ⁽⁶⁾⁽¹⁰⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	54
	W13d	W13 with • 89 mm thick absorptive material on one side only ⁽⁶⁾⁽¹⁰⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	45 min	53
	W13e	W13 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	45
	W13f	W13 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	45 min	45
	W14	 two rows 38 mm × 89 mm studs, each spaced 400 mm or 600 mm o.c. on separate 38 mm × 89 mm plates set 25 mm apart with or without absorptive material 2 layers of gypsum board on one side 1 layer of gypsum board on other side 			00045A
	W14a	W14 with • 89 mm thick absorptive material on each side ⁽⁶⁾⁽¹⁰⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h [1.5 h ^(β)]	61
	W14b	W14 with • 89 mm thick absorptive material on each side ⁽⁶⁾⁽¹⁰⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	61
	W14c	W14 with • 89 mm thick absorptive material on one side only ⁽⁶⁾⁽¹⁰⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	57
	W14d	 W14 with 89 mm thick absorptive material on one side only⁽⁶⁾⁽¹⁰⁾ 12.7 mm Type X gypsum board⁽⁷⁾ 	45 min	1 h	57
	W14e	W14 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	1 h	51
	W14f	W14 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min	1 h	51

	Wall	, Description	Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
		 two rows 38 mm × 89 mm studs, each spaced 400 mm or 600 mm o.c. on separate 38 mm × 89 mm plates set 25 mm apart 	M		M	
	W15	 with or without absorptive material 2 layers of gypsum board on each side 			GG00046A	
	W15a	W15 with • 89 mm thick absorptive material on each side ⁽⁶⁾⁽¹⁰⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	2 h	66	
	W15b	 W15 with 89 mm thick absorptive material on each side⁽⁶⁾⁽¹⁰⁾ 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	65	
	W15c	 W15 with 89 mm thick absorptive material on each side⁽⁶⁾⁽¹⁰⁾ 12.7 mm regular gypsum board⁽⁷⁾ 	45 min	1 h	61	
	W15d	 W15 with 89 mm thick absorptive material on one side only⁽⁶⁾⁽¹⁰⁾ 15.9 mm Type X gypsum board⁽⁷⁾ 	1.5 h	2 h	62	
	W15e	 W15 with 89 mm thick absorptive material on one side only⁽⁶⁾⁽¹⁰⁾ 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	1.5 h	60	
	W15f	 W15 with 89 mm thick absorptive material on one side only⁽⁶⁾⁽¹⁰⁾ 12.7 mm regular gypsum board⁽⁷⁾ 	45 min	1 h	57	
	W15g	W15 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	2 h	56	
	W15h	W15 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	1.5 h	55	
	W15i	W15 with • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	45 min	1 h	51	
Exterior Wood Studs Single Row	EW1	 38 mm × 89 mm studs spaced 400 mm or 600 mm o.c. 89 mm thick absorptive material⁽⁸⁾ 1 or 2 layers of gypsum board on inside 	-2 X 18888	<u></u>	GG00011A	
Loadbearing or Non-Loadbearing	EW1a	EW1 with 1 layer of 15.9 mm Type X gypsum board⁽⁷⁾⁽¹¹⁾ exterior sheathing and cladding⁽¹²⁾ 	1 h	1 h	n/a	

T	Wall	Description	Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	EW1b	EW1 with 1 layer 12.7 mm Type X gypsum board⁽⁷⁾⁽¹¹⁾ exterior sheathing and cladding⁽¹²⁾ 	45 min	45 min	n/a
	EW1c	EW1 with 2 layers of 12.7 mm regular gypsum board⁽⁷⁾⁽¹¹⁾ exterior sheathing and cladding⁽¹²⁾ 	45 min	45 min	n/a
	EW1d	EW1 with 1 layer of 12.7 mm Type X gypsum board⁽⁷⁾⁽¹¹⁾ exterior sheathing⁽¹³⁾ masonry veneer cladding 	45 min	45 min	n/a
	EW2	 wood studs 89 mm thick glass fiber insulation⁽¹⁴⁾ 1 layer of gypsum board on inside 	200000	8800000000000000000000000000000000000	GG00099A
	EW2a	EW2 with • 38 mm × 89 mm studs spaced not more than 400 mm o.c • 15.9 mm Type X gypsum board ⁽⁷⁾⁽¹¹⁾ • exterior sheathing and cladding ⁽¹²⁾	1 h	1 h	n/a
	EW2b	 EW2 with 38 mm × 89 mm studs spaced not more than 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾⁽¹¹⁾ exterior sheathing⁽¹³⁾ masonry veneer cladding 	45 min	45 min	n/a
	EW2c	EW2 with • 38 mm × 140 mm studs spaced not more than 600 mm o.c • 15.9 mm Type X gypsum board ⁽⁷⁾⁽¹¹⁾ • exterior sheathing and cladding ⁽¹²⁾	45 min	45 min	n/a
• Non- <i>Loadbearing</i> Steel Studs	S1	 31 mm × 64 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on each side 	- <u>-</u>	[GG00018A
• 0.46 mm (25 Gauge)	S1a	S1 with • studs spaced 600 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	_	45 min [1 h ⁽⁸⁾]	43
	S1b	S1 with • studs spaced 400 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	45 min [1 h ⁽⁸⁾]	39

T	Wall	5		Fire-Resistance Rating ⁽²⁾⁽³⁾	
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	S1c	S1 with • studs spaced 400 mm or 600 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	_	45 min	35
	S2	 31 mm × 64 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on one side 2 layers of gypsum board on other side 		[GG00019A
	S2a	S2 with • studs spaced 600 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	1 h	50
	S2b	S2 with • studs spaced 400 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	1 h	44
	S2c	S2 with • studs spaced 600 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h	50
	S2d	S2 with • studs spaced 400 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾	-	1 h	42
	S2e	 12.7 mm Type X gypsum board⁽⁷⁾ S2 with studs spaced 600 mm o.c. no absorptive material 15.9 mm Type X gypsum board⁽⁷⁾ 	-	1 h	41
	S2f	S2 with • studs spaced 400 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	_	1 h	37
	S2g	S2 with • studs spaced 600 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h	40
	S2h	S2 with • studs spaced 400 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h	35

	Wall		Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	S 3	 31 mm × 64 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 2 layers of gypsum board on each side 		Г	GG00020A	
	S3a	S3 with • studs spaced 600 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	_	2 h	54	
	S3b	S3 with • studs spaced 400 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	51	
	S3c	S3 with • studs spaced 600 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	_	1.5 h	53	
	S3d	S3 with • studs spaced 400 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	47	
	S3e	S3 with • studs spaced 600 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	49	
	S3f	S3 with • studs spaced 400 mm o.c. • 65 mm thick absorptive material ⁽⁶⁾ • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	41	
	S3g	S3 with • studs spaced 600 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	45	
	S3h	S3 with • studs spaced 400 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	42	
	S3i	S3 with • studs spaced 600 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	44	

	Wall	D	Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	S3j	S3 with • studs spaced 400 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	39
	S3k	S3 with • studs spaced 600 mm o.c. • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	_	1 h	40
	S3I	S3 with • studs spaced 400 mm o.c. • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	37
	S4	 31 mm × 92 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on each side 		[GG00021A
	S4a	S4 with • studs spaced 600 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	45 min [1 h ⁽⁸⁾]	48
	S4b	S4 with • studs spaced 400 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	45 min [1 h ⁽⁸⁾]	47
	S4c	S4 with • studs spaced 600 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	_	45 min	38
	S4d	S4 with • studs spaced 400 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	45 min	38
	S5	 31 mm × 92 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on one side 2 layers of gypsum board on other side 		[GG00022A
	S5a	S5 with • studs spaced 600 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	_	1 h [1.5 h ⁽⁸⁾]	53

	Wall		Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound
Type of Wall	Number	r Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	S5b	S5 with • studs spaced 400 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	1 h [1.5 h ⁽⁸⁾]	52
	S5c	S5 with • studs spaced 600 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h [1.5 h ⁽⁸⁾]	51
	S5d	S5 with • studs spaced 400 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h [1.5 h ⁽⁸⁾]	50
	S5e	S5 with • studs spaced 600 mm o.c. • no absorptive material • •15.9 mm Type X gypsum board ⁽⁷⁾	-	1 h	43
	S5f	S5 with • studs spaced 400 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	1 h	42
	S5g	S5 with • studs spaced 600 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h	41
	S5h	S5 with • studs spaced 400 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h	40
	S6	 31 mm × 92 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 2 layers of gypsum board on each side 	GGO		GG00023A
	S6a	S6 with • studs spaced 600 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	56
	S6b	S6 with • studs spaced 400 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	55

	Wall	D	Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	S6c	S6 with • studs spaced 600 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	55	
	S6d	S6 with • studs spaced 400 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	54	
	S6e	S6 with • studs spaced 600 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	50	
	S6f	S6 with • studs spaced 400 mm o.c. • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	48	
	S6g	S6 with • studs spaced 600 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	47	
	S6h	S6 with • studs spaced 400 mm o.c. • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	45	
	S6i	S6 with • studs spaced 600 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	45	
	S6j	S6 with • studs spaced 400 mm o.c. • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	44	
	S6k	S6 with • studs spaced 600 mm o.c. • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	41	
	S6I	S6 with • studs spaced 400 mm o.c. • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	39	
		-				

T (14) II	Wall	Description	Fire-Resista	ance Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	\$7	 31 mm × 152 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on each side 			GG00024A	
	S7a	S7 with • 150 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	_	45 min [1 h ⁽⁸⁾]	51	
	S7b	S7 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	45 min	41	
	S8	 31 mm × 152 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 1 layer of gypsum board on one side 2 layers of gypsum board on other side 			GG00025A	
	S8a	S8 with • 150 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	_	1 h [1.5 h ⁽⁸⁾]	55	
	S8b	S8 with • 150 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1 h [1.5 h ⁽⁸⁾]	54	
	S8c	S8 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	1 h	45	
	S8d	S8 with no absorptive material 12.7 mm Type X gypsum board⁽⁷⁾ 	-	1 h	44	
	S9	 31 mm × 152 mm steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material 2 layers of gypsum board on each side 			GG00026A	
	S9a	S9 with • 150 mm thick absorptive material ⁽⁶⁾ • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	59	
	S9b	S9 with • 150 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	57	

Table 9.10.3.1.-A (continued) Fire and Sound Resistance of Walls⁽¹⁾ Sentence 9 10 3 1 (1) Articles 9 11 1 3 and 9 11 1 4 and

	Wall	r Description	Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	S9c	S9 with 150 mm thick absorptive material⁽⁶⁾ 12.7 mm regular gypsum board⁽⁷⁾ 	_	1 h	53
	S9d	S9 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	-	2 h	49
	S9e	S9 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	-	1.5 h	47
	S9f	S9 with • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	-	1 h	43
 Loadbearing Steel Studs 0.84 mm to 1.52 mm Thickness 	S10	 41 mm × 92 mm loadbearing steel studs spaced 400 mm or 600 mm o.c. with or without cross-bracing on one side with or without absorptive material 2 layers gypsum board on each side 	7		GG00028A
	S10a	 S10 with 89 mm thick absorptive material⁽⁶⁾ 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	-	38
	S10b	S10 with • 89 mm thick absorptive material ⁽⁶⁾ • 12.7 mm Type X gypsum board ⁽⁷⁾	45 min [1 h]	-	38
	S10c	 S10 with 89 mm thick absorptive material⁽⁶⁾ 12.7 mm regular gypsum board⁽⁷⁾ 	-	-	36
	S10d	S10 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1 h	-	36
	S10e	S10 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	-	35
	S10f	S10 with • no absorptive material • 12.7 mm regular gypsum board ⁽⁷⁾	-	-	34
	S11	 41 mm × 92 mm loadbearing steel studs spaced 400 mm or 600 mm o.c. with or without cross-bracing on one side with or without absorptive material resilient metal channels on one side 1 layer gypsum board on each side 	GG00029A		GG00029A

	Wall	Description	Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	S11a	 S11 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	_	-	50	
	S11b	 S11 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	_	-	47	
	S11c	 S11 with no absorptive material resilient metal channels spaced at 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	-	-	41	
	S11d	 S11 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	-	-	47	
	S11e	 S11 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	-	-	45	
	S11f	 S11 with no absorptive material⁽⁶⁾ resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	-	-	39	
	S11g	 S11 with no absorptive material⁽⁶⁾ resilient metal channels spaced at 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	_	-	36	
	S11h	 S11 with no absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	-	-	38	
	S12	 41 mm × 92 mm loadbearing steel studs spaced 400 mm or 600 mm o.c. with or without cross-bracing on one side with or without absorptive material resilient metal channels on one side 2 layers gypsum board on resilient channel side 1 layer gypsum board on other side 			GG00030A	
	S12a	 S12 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	-	-	54	

	r Description	Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound	
Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
S12b	 S12 with no absorptive material resilient metal channels spaced at 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	_	-	46	
S12c	 S12 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	_	-	52	
S12d	 S12 with no absorptive material resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	_	-	43	
S12e	 S12 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	-	-	52	
S12f	 S12 with no absorptive material resilient metal channels spaced at 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	-	-	43	
S12g	 S12 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	_	-	50	
S12h	 S12 with no absorptive material resilient metal channels spaced at 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	_	-	41	
S13	 41 mm × 92 mm loadbearing steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material resilient metal channels on one side spaced at 400 mm o.c. 2 layers gypsum board on resilient channel side 1 layer shear membrane and 1 layer gypsum board on other side 	GG00096A		GG00096A	
S13a	 S13 with 89 mm thick absorptive material⁽⁶⁾ 12.7 mm OSB shear membrane 12.7 mm Type X gypsum board⁽⁷⁾ 	30 min	-	57	
	S12b S12c S12c S12d S12d S12e S12f S12g S12h S12h S12h	S12 S12 with S12b S12 with resilient metal channels spaced at 600 mm o.c. i 5.9 mm Type X gypsum board ⁽⁷⁾ S12c S12 with · 89 mm thick absorptive material ⁽⁶⁾ · resilient metal channels spaced at 400 mm o.c. i 5.9 mm Type X gypsum board ⁽⁷⁾ S12d S12d S12d s12d s12sitent metal channels spaced at 400 mm o.c. i 5.9 mm Type X gypsum board ⁽⁷⁾ S12d S12d s12d · resilient metal channels spaced at 400 mm o.c. i 5.9 mm Type X gypsum board ⁽⁷⁾ S12e S12with · 89 mm thick absorptive material · resilient metal channels spaced at 600 mm o.c. · 12.7 mm Type X gypsum board ⁽⁷⁾ S12g S12 with · no absorptive material · resilient metal channels spaced at 600 mm o.c. · 12.7 mm Type X gypsum board ⁽⁷⁾ S12g S12 with · 12.7 mm Type X gypsum board ⁽⁷⁾ S12h · 12.7 mm Type X gypsum board ⁽⁷⁾ S12with </td <td>S12 Image: Construct and the second seco</td> <td>S12 with Foundational space at 600 mm o.c. S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 15.9 mm Type X gypsum board⁽⁷⁾ - S12 with • 89 mm thick absorptive material⁽⁸⁾ • sesilient metal channels spaced at 400 mm o.c. - • 15.9 mm Type X gypsum board⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 400 mm o.c. - • 15.9 mm Type X gypsum board⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 12.7 mm Type X gypsum board⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 12.7 mm Type X gypsum board⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 12.7 mm Type X gypsum board⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 400 mm o.c. - • 12.7 mm Type X gypsum board⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 400 mm o.c. - • 12.7 mm Type X gypsum board⁽⁷⁾</td>	S12 Image: Construct and the second seco	S12 with Foundational space at 600 mm o.c. S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 15.9 mm Type X gypsum board ⁽⁷⁾ - S12 with • 89 mm thick absorptive material ⁽⁸⁾ • sesilient metal channels spaced at 400 mm o.c. - • 15.9 mm Type X gypsum board ⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 400 mm o.c. - • 15.9 mm Type X gypsum board ⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 12.7 mm Type X gypsum board ⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 12.7 mm Type X gypsum board ⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 600 mm o.c. - • 12.7 mm Type X gypsum board ⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 400 mm o.c. - • 12.7 mm Type X gypsum board ⁽⁷⁾ - S12 with • no absorptive material • resilient metal channels spaced at 400 mm o.c. - • 12.7 mm Type X gypsum board ⁽⁷⁾	

T	Wall	Description	Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	S14	 41 mm × 92 mm loadbearing steel studs spaced 400 mm or 600 mm o.c. with or without absorptive material resilient metal channels on one side 2 layers gypsum board on each side 			GG00031A	
	S14a	 S14 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	_	60	
	S14b	 S14 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	45 min [1 h]	-	57	
	S14c	 S14 with 89 mm thick absorptive material⁽⁶⁾ resilient metal channels spaced at 600 mm o.c. 12.7 mm regular gypsum board⁽⁷⁾ 	-	-	54	
	S14d	 S14 with no absorptive material resilient metal channels spaced at 600 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	-	51	
	S14e	 S14 with studs at 400 mm o.c. no absorptive material resilient metal channels spaced at 600 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	-	49	
	S14f	 S14 with studs at 600 mm o.c. no absorptive material resilient metal channels spaced at 600 mm o.c. 12.7 mm regular gypsum board⁽⁷⁾ 	1 h	_	50	
	S14g	 S14 with no absorptive material resilient metal channels spaced at 600 mm o.c. 12.7 mm regular gypsum board⁽⁷⁾ 	-	-	45	
	S14h	 S14 with studs at 400 mm o.c. 89 mm thick absorptive material resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	-	58	

Time of Mall	Wall	Wall	Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	S14i	 S14 with studs at 600 mm o.c. 89 mm thick absorptive material resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	-	60
	S14j	 S14 with 89 mm thick absorptive material resilient metal channels spaced at 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	45 min [1 h]	-	55
	S14k	 S14 with studs at 400 mm o.c. no absorptive material resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	_	49
	S14I	 S14 with studs at 600 mm o.c. no absorptive material resilient metal channels spaced at 400 mm o.c. 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	_	51
	S14m	 S14 with no absorptive material resilient metal channels spaced at 400 mm o.c. 12.7 mm Type X gypsum board⁽⁷⁾ 	1 h	-	47
	S15	 2 rows of 92 mm loadbearing steel studs spaced 400 mm or 600 mm o.c. with cross-bracing with or without absorptive material 2 layers of gypsum board each side 		і <u>С С</u> С	GG00097A
	S15a	S15 with • 89 mm thick absorptive material in each cavity • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	-	68
	S15b	S15 with • no absorptive material • 12.7 mm Type X gypsum board ⁽⁷⁾	1 h	-	52
	S15c	 S15 with 89 mm thick absorptive material in each cavity 15.9 mm Type X gypsum board⁽⁷⁾ 	1 h	-	68
	S15d	S15 with • no absorptive material • 15.9 mm Type X gypsum board ⁽⁷⁾	1.5 h	-	52

Tarada	Wall	Description	Fire-Resistar	nce Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
Hollow Concrete Block (Normal Weight Aggregate)	B1	140 mm or 190 mm concrete block			GG00001A
	B1a	140 mm bare concrete block ⁽⁵⁾	1 h	1 h	48
	B1b	190 mm bare concrete block ⁽⁵⁾	1.5 h	1.5 h	50
	B2	 140 mm or 190 mm concrete block no absorptive material 1 layer gypsum-sand plaster or gypsum board on each side 			GG00002A
	B2a	B2 with • 140 mm concrete block • 12.7 mm gypsum-sand plaster	2 h	2 h	50
	B2b	B2 with • 140 mm concrete block • 12.7 mm Type X gypsum board or 15.9 mm Type X gypsum board ⁽⁷⁾	2 h	2 h	47
	B2c	B2 with • 140 mm concrete block • 12.7 mm regular gypsum board ⁽⁷⁾	1.5 h	1.5 h	46
	B2d	B2 with • 190 mm concrete block • 12.7 mm gypsum-sand plaster	2.5 h	2.5 h	51
	B2e	B2 with • 190 mm concrete block • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	50
	B2f	B2 with • 190 mm concrete block • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	49
	B2g	B2 with • 190 mm concrete block • 12.7 mm regular gypsum board ⁽⁷⁾	2 h	2 h	48

	Wall		Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	В3	 140 mm or 190 mm concrete block resilient metal channels on one side spaced at 400 mm or 600 mm o.c. absorptive material filling resilient metal channel space⁽⁶⁾ 1 layer gypsum board on each side 			GG00003A
	B3a	 B3 with 140 mm concrete block 12.7 mm Type X gypsum board or 15.9 mm Type X gypsum board⁽⁷⁾ 	2 h	2 h	51
	B3b	B3 with • 140 mm concrete block • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	1.5 h	1.5 h	48
	B3c	B3 with • 190 mm concrete block • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	54
	B3d	B3 with • 190 mm concrete block • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	53
	B3e	B3 with • 190 mm concrete block • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	2 h	2 h	51
	В4	 140 mm or 190 mm concrete block resilient metal channels on each side spaced at 400 mm or 600 mm o.c. with or without absorptive material 1 layer gypsum board on each side 			GG00004A
	B4a	 B4 with 140 mm concrete block 12.7 mm Type X gypsum board⁽⁷⁾, or 15.9 mm Type X gypsum board⁽⁷⁾ 	2 h	2 h	47
	B4b	B4 with • 140 mm concrete block • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	1.5 h	1.5 h	42
	B4c	B4 with • 190 mm concrete block • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	50
	B4d	B4 with • 190 mm concrete block • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	49

	Wall	Description	Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound	
Type of Wall	Number		Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	B4e	B4 with 190 mm concrete block 12.7 mm regular gypsum board⁽⁷⁾⁽⁹⁾ 	2 h	2 h	45	
	B5	 190 mm concrete block 38 mm × 38 mm horizontal or vertical wood strapping on one side spaced at 600 mm o.c. with or without absorptive material 1 layer gypsum board on each side 			GG00005A	
	B5a	B5 with • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	54	
	B5b	B5 with • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	53	
	B5c	B5 with • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	2 h	2 h	51	
	B6	 140 mm or 190 mm concrete block 38 mm × 38 mm horizontal or vertical wood strapping on each side spaced at 600 mm o.c. absorptive material filling strapping space on each side⁽⁶⁾ 1 layer gypsum board on each side 			GG00006A	
	B6a	B6 with • 140 mm concrete block • 12.7 mm Type X gypsum board or 15.9 mm Type X gypsum board ⁽⁷⁾	2 h	2 h	57	
	B6b	B6 with • 140 mm concrete block • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	1.5 h	1.5 h	56	
	B6c	B6 with • 190 mm concrete block • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	60	
	B6d	B6 with • 190 mm concrete block • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	59	
	B6e	B6 with • 190 mm concrete block • 12.7 regular gypsum board ⁽⁷⁾⁽⁹⁾	2 h	2 h	57	

T (Well	Wall	Description	Fire-Resista	nce Rating ⁽²⁾⁽³⁾	Typical Sound	
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾	
	В7	 190 mm concrete block 65 mm steel studs each side spaced at 600 mm o.c. absorptive material filling stud space on each side⁽⁶⁾ 1 layer gypsum board on each side 			GG00007A	
	B7a	B7 with • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	71	
	B7b	B7 with • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	70	
	B7c	B7 with • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	2 h	2 h	69	
	B8	 190 mm concrete block 38 mm × 64 mm wood studs on each side spaced at 600 mm o.c. absorptive material filling stud space on each side⁽⁶⁾ 1 layer gypsum board on each side 			GG00008A	
	B8a	B8 with • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	71	
	B8b	B8 with • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	70	
	B8c	B8 with • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	2 h	2 h	69	
	В9	 190 mm concrete block 50 mm metal Z-bars on each side spaced at 600 mm o.c. (or 38 mm × 38 mm horizontal or vertical wood strapping plus resilient metal channels) absorptive material filling Z-bar space on each side⁽⁶⁾ 1 layer gypsum board on each side 			GG00009A	
	B9a	B9 with • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	65	
	B9b	B9 with • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	64	

Forming Part of Article 5.8.1.3., Sentence 9.10.3.1.(1), Articles 9.11.1.3. and 9.11.1.4., and Sentence 9.29.5.9.(5)

	Wall		Fire-Resistance Rating ⁽²⁾⁽³⁾		Typical Sound
Type of Wall	Number	Description	Loadbearing	Non-Loadbearing	Transmission Class ⁽²⁾⁽⁴⁾⁽⁵⁾
	B9c	B9 with • 12.7 mm regular gypsum board ⁽⁷⁾⁽⁹⁾	2 h	2 h	63
	B10	 190 mm concrete block resilient metal channels on one side spaced at 600 mm o.c. absorptive material filling resilient metal channel space⁽⁶⁾ 2 layers gypsum board on one side only 			GG00010A
	B10a	B10 with • 15.9 mm Type X gypsum board ⁽⁷⁾	3 h	3 h	56
	B10b	B10 with • 12.7 mm Type X gypsum board ⁽⁷⁾	2.5 h	2.5 h	55
	B10c	B10 with • 12.7 mm regular gypsum board ⁽⁷⁾	2 h	2 h	54

Notes to Table 9.10.3.1.-A:

(1) See Note A-9.10.3.1.

- (2) Fire-resistance ratings and STC ratings of wood-frame construction were evaluated only for constructions with solid-sawn 38 mm × 89 mm lumber. However, the fire-resistance ratings and STC ratings provided for 38 mm × 89 mm wood-frame construction may be applied to wood-frame constructions with solid-sawn 38 mm × 140 mm lumber; in some cases the ratings may be conservative. Where 38 mm × 140 mm framing is used and absorptive material is called for, the absorptive material must be 140 mm thick. (See D-1.2.1.(2) in Appendix D for the significance of fire-resistance ratings.) The STC ratings may also be applied to fingerjoined lumber. The fire-resistance ratings are applicable to constructions using fingerjoined lumber that has been manufactured with a heat-resistant adhesive (HRA) in accordance with NLGA special product standard SPS-1, "Fingerjoined Structural Lumber," or SPS-3, "Fingerjoined "Vertical Stud Use Only" Lumber." (See also A-9.23.10.4.(1).)
- (3) For all fire-resistance ratings, the given spacing for framing is a maximum value.
- (4) Sound ratings listed are based on the most reliable laboratory test data available for specimens conforming to installation details required by CSA A82.31-M, "Gypsum Board Application." Results of specific tests may differ slightly because of measurement precision and minor variations in construction details. These results should only be used where the actual construction details, including spacing of fasteners and supporting framing, correspond exactly to the details of the test specimens on which the ratings are based. Assemblies with *sound transmission class* ratings of 50 or more require acoustical sealant applied around electrical boxes and other openings, and at the junction of intersecting walls and floors, except intersection of walls constructed of concrete or *solid masonry units* where the masonry joints at the intersection are mortared.
- (5) Sound ratings are only valid where there are no discernible cracks or voids in the visible surfaces. For concrete blocks, surfaces must be sealed by at least 2 coats of paint or other surface finish described in Section 9.29. to prevent sound leakage.
- (6) Sound absorptive material includes fibre processed from rock, slag, glass or cellulose fibre. It must fill at least 90% of the cavity thickness for the wall to have the listed STC value. The absorptive material should not overfill the cavity to the point of producing significant outward pressure on the finishes; such an assembly will not achieve the STC rating. Where the absorptive material used with steel stud assemblies is in batt form, "steel stud batts," which are wide enough to fill the cavity from the web of one stud to the web of the adjacent stud, must be used.
- (7) The complete descriptions of indicated finishes are as follows:
 - 12.7 mm regular gypsum board 12.7 mm regular gypsum board conforming to Article 9.29.5.2.
 - 12.7 mm Type X gypsum board 12.7 mm special fire-resistant Type X gypsum board conforming to Article 9.29.5.2.
 - 15.9 mm Type X gypsum board 15.9 mm special fire-resistant Type X gypsum board conforming to Article 9.29.5.2.
 - Except for exterior walls (see Note 9), the outer layer of finish on both sides of the wall must have its joints taped and finished.
 - · Fastener types and spacing must conform to CSA A82.31-M, "Gypsum Board Application."
- (8) Absorptive material required for the higher *fire-resistance rating* is mineral fibre processed from rock or slag with a mass of at least 4.8 kg/m² for 150 mm thickness, 2.8 kg/m² for 89 mm thickness and 2.0 kg/m² for 65 mm thickness and completely filling the wall cavity. For assemblies with double wood studs on separate plates, absorptive material is required in the stud cavities on both sides.
- (9) Regular gypsum board used in single layer assemblies must be installed so all edges are supported.
- (10) Where bracing material, such as diagonal lumber or plywood, OSB, gypsum board or fibreboard sheathing is installed on the inner face of one row of studs in double stud assemblies, the STC rating will be reduced by 3 for any assemblies containing absorptive material in both rows of studs or in the row of studs opposite to that to which the bracing material is attached. Attaching such layers on both inner faces of the studs may drastically reduce the STC value but enough data to permit assignment of STC ratings for this situation is not available. The *fire-resistance rating* is not affected by the inclusion of such bracing.
- (11) For exterior walls, the finish joints must be taped and finished for the outer layer of the interior side only. The gypsum board on the exterior side may be replaced with gypsum sheathing of the same thickness and type (regular or Type X).

- (12) Includes any exterior wall sheathing and cladding combination allowed under Part 9 other than foamed plastic sheathing. The cladding portion can include foamed plastic outboard of noncombustible, structural wood-based or gypsum-based sheathing conforming to the minimum thicknesses listed in Table 9.23.17.2.-A.
- (13) Includes any exterior wall sheathing listed in Table 9.23.17.2.-A and masonry veneer cladding conforming to Section 9.20. Foamed plastic sheathing is permitted in EW1d and EW2b walls without the use of other sheathing, provided it is directly attached to the framing.
- (14) The glass fibre insulation filling the cavity shall have a mass per unit area of not less than 1.0 kg/m² of wall surface.

Table 9.10.3.1.-B Fire and Sound Resistance of Floors, Ceilings and Roofs⁽¹⁾ Forming Part of Article 5.8.1.3., Sentences 9.10.3.1.(1) and 9.10.5.1.(4), and Article 9.11.1.3.

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
Floors and Ceilings					
Concrete Slabs	F1	concrete floors		······································	GC00100A
	F1a	90 mm reinforced concrete with 20 mm minimum cover over reinforcing steel	1 h	47	23
	F1b	 130 mm reinforced concrete with 25 mm minimum cover over reinforcing steel 	2 h	52	27
	F1c	pre-stressed hollow core slab 200 mm deep with 25 mm minimum cover over reinforcing steel	1 h	50	28
	F1d	150 mm composite slab on 75 mm steel deck with 152 × 152 × MW3.8 × MW3.8 wire mesh	-	51	21
	F1e	 150 mm composite slab on 75 mm steel deck with 152 × 152 × MW3.8 × MW3.8 wire mesh resilient metal channels 400 mm or 600 mm o.c. 2 layers of 12.7 mm Type X gypsum board or 2 layers of 15.9 mm Type X gypsum board 	1.5 h	57	36
Open Web Steel Joists	F2	open web steel joists with concrete floor	GG0010		GG00101A
	F2a	 50 mm thick concrete deck on open web steel joists spaced 400 mm o.c. furring channels spaced not more than 600 mm o.c. wired to underside of joists 1 layer of 15.9 mm Type X gypsum board on ceiling side 	45 min	53	27

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F2b	 65 mm regular concrete minimum 155 kg/m² on composite steel joists spaced 1250 mm o.c. furring channels spaced not more than 600 mm o.c. wired to underside of joists 1 layer of 12.7 mm or 15.9 mm Type X gypsum board on ceiling side 	1.5 h	53	28
Wood Floor Joists ⁽¹²⁾	F3 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			GG00102A
	F3a	F3 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	_	29	27
	F3b	F3 with • absorptive material in cavity • 15.9 mm Type X gypsum board	_	31	30
	F3c	F3 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	_	27	26
	F3d	F3 with • absorptive material in cavity • 12.7 mm Type X gypsum board	_	29	29
	F3e	F3 with • no absorptive material in cavity • 12.7 mm regular gypsum board	_	27	25
	F3f	F3 with • absorptive material in cavity • 12.7 mm regular gypsum board	_	29	28
	F4 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00103A

Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
F4a	 F4 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	33	31
F4b	 F4 with wood joists or wood I-joists spaced 600 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	34	31
F4c	 F4 with wood joists or wood I-joists spaced 400 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	35	34
F4d	 F4 with wood joists or wood I-joists spaced 600 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min	38	34
F4e	 F4 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	1 h	32	30
F4f	 F4 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	33	30
F4g	 F4 with wood joists or wood I-joists spaced 400 mm o.c. absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	34	33
F4h	 F4 with wood joists or wood I-joists spaced 600 mm o.c. absorptive material in cavity 12.7 mm Type X gypsum board 	-	35	33
F4i	F4 with no absorptive material in cavity 12.7 mm regular gypsum board 	_	31	30
F4j	F4 with • absorptive material in cavity • 12.7 mm regular gypsum board	_	33	33
	Number F4a F4b F4c F4c F4d F4d F4d F4d F4e F4e F4f F4g F4h F4i	NumberDescription takesF4aF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum boardF4bF4 with • wood joists or wood I-joists spaced 600 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum boardF4cF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum boardF4cF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum boardF4dF4 with • wood joists or wood I-joists spaced 600 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum boardF4eF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum boardF4fF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum boardF4fF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum boardF4gF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum boardF4gF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 12.7 mm Type X gypsum boardF4fF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 12.7 mm Type X gypsum boardF4hF4 with 	NumberDescriptionRating (WINTIM)F4aF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board1 hF4bF4 with • wood joists or wood I-joists spaced 600 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board1 hF4cF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum board1 hF4cF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum board45 min (1 h) ¹¹⁽⁴⁾ F4dF4 with • wood joists or wood I-joists spaced 600 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum board45 minF4dF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum board1 hF4fF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum board45 minF4gF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 12.7 mm Type X gypsum board45 minF4gF4 with • wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 12.7 mm Type X gypsum board-F4gF4 with • wood joists or wood I-joists spaced 600 mm o.c. • absorptive material in cavity • 12.7 mm Type X gypsum board-F4hF4 with • no absorptive material in cavity • 12.7 mm Type X gypsum board-F4iF4 with • no absorptive material in cavity • 12.7 mm Ty	Assembly NumberDescriptionFire-Resistance Rating/NNOTENTransmission Class/NNOTEN (STC)F4aF4 with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board1 h33F4with • wood joists or wood I-joists spaced 600 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board1 h34F4with • wood joists or wood I-joists spaced 600 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board45 min [1 h] ¹⁴¹ 35F4cF4 with • wood joists or wood I-joists spaced 600 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum board45 min [1 h] ¹⁴¹ 35F4dF4 with • wood joists or wood I-joists spaced 600 mm o.c. • absorptive material in cavity • 15.9 mm Type X gypsum board45 min [1 h] ¹⁴¹ 38F4d• wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum board1 h32F4with • wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum board45 min33F4f• wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum board45 min33F4f• wood joists or wood I-joists spaced 400 mm o.c. • no absorptive material in cavity • 12.7 mm Type X gypsum board45 min33F4f• wood joists or wood I-joists spaced 400 mm o.c. • absorptive material in cavity • 12.7 mm Type X gypsum board-35F4with • wood joists or wood I-joists spaced

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F5 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00104A
	F5a	F5 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum 	30 min	35	37
	F5b	F5 with no absorptive material in cavity steel furring channels spaced 600 mm o.c 15.9 mm Type X gypsum board 	30 min	37	30
	F5c	F5 with • absorptive material in cavity • steel furring channels spaced 400 mm o.c. • 15.9 mm Type X gypsum board	30 min [45 min] ⁽¹⁵⁾	38	30
	F5d	F5 with • absorptive material in cavity • steel furring channels spaced 600 mm o.c. • 15.9 mm Type X gypsum board	30 min	40	33
	F5e	F5 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min	33	26
	F5f	F5 with • no absorptive material in cavity • steel furring channels spaced 600 mm o.c. • 12.7 mm Type X gypsum board	30 min	35	29
	F5g	F5 with • absorptive material in cavity • steel furring channels spaced 400 mm o.c. • 12.7 mm Type X gypsum board	30 min [45 min](15)	36	29
	F5h	 F5 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	30 min	38	32

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F5i	 F5 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	< 30 min	33	25
	F5j	F5 withno absorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	< 30 min	35	28
	F5k	F5 withabsorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm regular gypsum board	< 30 min	36	28
	F5I	F5 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	< 30 min	38	33
	F6 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00105A
	F6a ⁽¹⁶⁾	 F6 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum boad 	1 h	39	32
	F6b ⁽¹⁶⁾	 F6 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	41	32
	F6c ⁽¹⁶⁾	 F6 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	42	35
	F6d ⁽¹⁶⁾	 F6 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	44	37

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F6e ⁽¹⁶⁾	 F6 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	38	30
	F6f ⁽¹⁶⁾	 F6 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	40	33
	F6g ⁽¹⁶⁾	 F6 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	41	33
	F6h ⁽¹⁶⁾	 F6 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	43	36
	F6i	 F6 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	37	30
	F6j	 F6 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	39	33
	F6k	F6 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board	_	40	33
	F6I	F6 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	-	42	36
	F7 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board attached directly to joists on ceiling side resilient metal channels spaced 400 mm or 600 mm o.c. attached to joists through gypsum board 1 layer of gypsum board attached to resilient metal channels 			GC00106A

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F7a ⁽¹⁶⁾	 F7 with no absorptive material in cavity 15.9 mm Type X gypsum board resilient metal channels 15.9 mm Type X gypsum board 	1 h	35	27
	F7b ⁽¹⁶⁾	 F7 with absorptive material in cavity 15.9 mm Type X gypsum board resilient metal channels 15.9 mm Type X gypsum board 	1 h	37	30
	F7c ⁽¹⁶⁾	 F7 with no absorptive material in cavity 12.7 mm Type X gypsum board resilient metal channels 12.7 mm Type X gypsum board 	1 h	35	27
	F7d ⁽¹⁶⁾	 F7 with absorptive material in cavity 12.7 mm Type X gypsum board resilient metal channels 12.7 mm Type X gypsum board 	1 h	37	30
	F7e	 F7 with no absorptive material in cavity 12.7 mm regular gypsum board resilient metal channels 12.7 mm regular gypsum board 	_	32	26
	F7f	 F7 with absorptive material in cavity 12.7 mm regular gypsum board resilient metal channels 12.7 mm regular gypsum board 	-	35	28
	F8 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00107A

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F8a	 F8 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min	41	33
	F8b	 F8 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min	43	36
	F8c	 F8 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽¹⁵⁾	48	41
	F8d	 F8 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min	50	44
	F8e	 F8 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min	39	32
	F8f	 F8 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	30 min	41	35
	F8g	 F8 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min [45 min] ⁽¹⁵⁾	46	40
	F8h	 F8 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	30 min	48	43
	F8i	 F8 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	< 30 min	41	31
	F8j	 F8 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	< 30 min	41	34

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F8k	 F8 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	< 30 min	46	39
	F8I	 F8 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	< 30 min	48	42
	F9 ⁽¹³⁾	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00108A
	F9a ⁽¹⁶⁾	 F9 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	45	38
	F9b ⁽¹⁶⁾	 F9 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	47	40
	F9c ⁽¹⁶⁾	 F9 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	52 [54] ⁽¹⁸⁾	46
	F9d ⁽¹⁶⁾	 F9 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	54 [56] ⁽¹⁸⁾	48
	F9e ⁽¹⁶⁾	 F9 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	44	36
	F9f ⁽¹⁶⁾	 F9 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	46	39

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F9g ⁽¹⁶⁾	 F9 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	51 [53] ⁽¹⁸⁾	44
	F9h ⁽¹⁶⁾	 F9 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	53	47
	F9i	 F9 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	43	36
	F9j	 F9 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	45	39
	F9k	 F9 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	50	44
	F9I	 F9 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	52	47
	F10 ⁽¹³⁾	 one subfloor layer of 11 mm sanded plywood, or OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 300, 400 or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00109A
	F10a	 F10 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min	44	34
	F10b	 F10 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min	46	37

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F10c	 F10 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽¹⁷⁾	51	42
	F10d	 F10 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽¹⁵⁾	53	45
	F10e	 F10 with wood joists spaced at 400 mm o.c. absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽¹⁹⁾	53 ⁽¹⁹⁾	44
	F10f ⁽²⁰⁾	 F10 with wood I-joists spaced at 400 mm o.c. absorptive material in cavity resilient metal channels spaced 300 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽¹⁹⁾	52 ⁽¹⁹⁾	43
	F10g	 F10 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min	42	33
	F10h	 F10 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	30 min	44	36
	F10i	 F10 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min [45 min] ⁽¹⁷⁾	49	41
	F10j	 F10 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	30 min [45 min] ⁽¹⁵⁾	51	44
	F10k	 F10 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	42	33
	F10I	 F10 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	44	35

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F10m	 F10 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	49	41
	F10n	 F10 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	51	43
	F11 ⁽¹³⁾	 one subfloor layer of 11 mm sanded plywood, or OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood l-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00110A
	F11a ⁽¹⁶⁾	 F11 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	48	39
	F11b ⁽¹⁶⁾	 F11 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	50	42
	F11c ⁽¹⁶⁾	 F11 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	55 [56] ⁽¹⁸⁾	47
	F11d ⁽¹⁶⁾	 F11 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	57 [58] ⁽¹⁸⁾	50
	F11e ⁽¹⁶⁾	 F11 with wood joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1.5 h ⁽²¹⁾	56 ⁽²¹⁾	47

Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
F11f ⁽²⁰⁾	 F11 with wood I-joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 300 mm o.c. 15.9 mm Type X gypsum board 	1.5 h ⁽²¹⁾	56(21)	46
F11g ⁽¹⁶⁾	 F11 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	47	38
F11h ⁽¹⁶⁾	 F11 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	49	40
F11i ⁽¹⁶⁾	 F11 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	54 [55] ⁽¹⁸⁾	46
F11j ⁽¹⁶⁾	 F11 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	56	48
F11k	 F11 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	46	37
F11I	 F11 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	48	40
F11m	 F11 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	53	45
F11n	 F11 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	55	48
		F11 with • absorptive material in cavity • resilient metal channels spaced 400 mm o.c. • 12.7 mm regular gypsum board F11 with • absorptive material in cavity • resilient metal channels spaced 600 mm o.c.	F11 with • absorptive material in cavity - • resilient metal channels spaced 400 mm o.c. - • 12.7 mm regular gypsum board - F11 with • absorptive material in cavity • resilient metal channels spaced 600 mm o.c. -	F11 with • absorptive material in cavity - 53 11m • resilient metal channels spaced 400 mm o.c. - 53 11n • F11 with • absorptive material in cavity - 53 11n • absorptive material in cavity - 55

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F12 ⁽¹³⁾	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			
	F12a	F12 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	-	41	13
	F12b	F12 with • absorptive material in cavity • 15.9 mm Type X gypsum board	-	43	16
	F12c	F12 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	_	39	12
	F12d	F12 with • absorptive material in cavity • 12.7 mm Type X gypsum board	-	41	15
	F12e	F12 withno absorptive material in cavity12.7 mm regular gypsum board	-	39	12
	F12f	F12 withabsorptive material in cavity12.7 mm regular gypsum board	_	41	15
	F13 ⁽¹³⁾	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00112A
	F13a	 F13 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	43	16

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F13b	 F13 with wood joists or wood I-joists spaced 600 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	45	16
	F13c	 F13 with wood joists or wood I-joists spaced 400 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	45	19
	F13d	 F13 with wood joists or wood I-joists spaced 600 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min	47	19
	F13e	 F13 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	1 h	42	15
	F13f	 F13 with wood joists or wood I-joists spaced 600 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	44	15
	F13g	 F13 with wood joists or wood I-joists spaced 400 mm o.c. absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	44	18
	F13h	 F13 with wood joists or wood I-joists spaced 600 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	_	46	18
	F13i	F13 with • no absorptive material in cavity • 12.7 mm regular gypsum board	-	41	14
	F13j	F13 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	45	14

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F14 ⁽¹³⁾	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 300, 400 or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00114A
	F14a	 F14 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	53	22
	F14b	 F14 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	55	22
	F14c	 F14 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽¹⁷⁾	60	30
	F14d	 F14 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	62	30
	F14e	 F14 with wood joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽¹⁹⁾	60 ⁽¹⁹⁾	31
	F14f ⁽²⁰⁾	 F14 with wood I-joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 300 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽¹⁹⁾	61(19)	31
	F14g	 F14 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	51	21
	F14h	 F14 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	53	21

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F14i	 F14 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	58	29
	F14j	 F14 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	60	29
	F14k	 F14 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	51	21
	F14I	 F14 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	53	21
	F14m	 F14 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	58	29
	F14n	 F14 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	60	29
	F15 ⁽¹³⁾	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00115A
	F15a ⁽¹⁶⁾	 F15 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽²²⁾	57	25
	F15b ⁽¹⁶⁾	 F15 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	59	25

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F15c ⁽¹⁶⁾	 F15 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	64 [65] ⁽¹⁸⁾	33
	F15d ⁽¹⁶)	 F15 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	66 [67] ⁽¹⁸⁾	33
	F15e ⁽¹⁶⁾	 F15 with wood joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1.5 h ⁽²¹⁾	65 ⁽²¹⁾	33
	F15f ⁽²⁰⁾	 F15 with wood I-joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 300 mm o.c. 15.9 mm Type X gypsum board 	1.5 h ⁽²¹⁾	64 ⁽²¹⁾	33
	F15g ⁽¹⁶⁾	 F15 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	56	24
	F15h ⁽¹⁶⁾	 F15 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	58	24
	F15i ⁽¹⁶⁾	 F15 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	63 [64] ⁽¹⁸⁾	32
	F15j ⁽¹⁶⁾	 F15 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	65	32
	F15k	 F15 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	55	23
	F15I	 F15 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	57	23

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F15m	 F15 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	62	31
	F15n	 F15 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	64	31
	F16 ⁽¹³⁾	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			GC00116A
	F16a	F 16 with no absorptive material in cavity 15.9 mm Type X gypsum board 	-	44	22
	F16b	F16 withabsorptive material in cavity15.9 mm Type X gypsum board	-	46	25
	F16c	F16 withno absorptive material in cavity12.7 mm Type X gypsum board	-	43	21
	F16d	F16 withabsorptive material in cavity12.7 mm Type X gypsum board	-	45	24
	F16e	F16 withno absorptive material in cavity12.7 mm regular gypsum board	-	42	21
	F16f	F16 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	44	24

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F17 ⁽¹³⁾	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00117A
	F17a	 F17 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	48	24
	F17b	 F17 with wood joists or wood I-joists spaced 600 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	51	24
	F17c	 F17 with wood joists or wood I-joists spaced 400 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	48	27
	F17d	 F17 with wood joists or wood I-joists spaced 600 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min	51	27
	F17e	 F17 with wood joists or wood I-joists spaced 400 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	1 h	47	23
	F17f	 F17 with wood joists or wood I-joists spaced 600 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	48	23
	F17g	 F17 with wood joists or wood I-joists spaced 400 mm o.c. absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	49	26
	F17h	 F17 with wood joists or wood I-joists spaced 600 mm o.c. absorptive material in cavity 12.7 mm Type X gypsum board 	_	50	26

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F17i	F17 withno absorptive material in cavity12.7 mm regular gypsum board	_	47	23
	F17j	F17 withabsorptive material in cavity12.7 mm regular gypsum board	_	49	26
	F18 ⁽¹³⁾	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00118A
	F18a	 F18 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	50	25
	F18b	 F18 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	52	25
	F18c	 F18 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	53	28
	F18d	 F18 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	55	28
	F18e	F18 withno absorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm Type X gypsum board	-	49	24
	F18f	F18 withno absorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm Type X gypsum board	_	51	24

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F18g	 F18 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	52	27
	F18h	 F18 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	54	27
	F18i	 F18 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	48	24
	F18j	 F18 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	50	24
	F18k	 F18 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	51	27
	F18I	F18 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	-	53	27
	F19 ⁽¹³⁾	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			
	F19a ⁽¹⁶⁾	 F19 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	54	27
	F19b ⁽¹⁶⁾	 F19 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	56	27

F19c ⁽¹⁶⁾	F19 with absorptive material in cavity 		(STC)	Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	 steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board	1 h	57	30
F19d ⁽¹⁶⁾	 F19 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	59	30
F19e ⁽¹⁶⁾	 F19 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	53	26
F19f ⁽¹⁶)	 F19 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	55	26
F19g ⁽¹⁶⁾	 F19 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	56	29
F19h ⁽¹⁶⁾	 F19 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	58	29
F19i	 F19 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	53	26
F19j	 F19 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	55	26
F19k	 F19 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	56	29
F19I	 F19 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	58	29
	F19k	F19j • steel furring channels spaced 600 mm o.c. • 12.7 mm regular gypsum board F19k F19 with • absorptive material in cavity • steel furring channels spaced 400 mm o.c. • 12.7 mm regular gypsum board F19k F19 with • absorptive material in cavity • steel furring channels spaced 400 mm o.c. F19l F19 with • absorptive material in cavity • steel furring channels spaced 600 mm o.c.	F19j • steel furring channels spaced 600 mm o.c. - • 12.7 mm regular gypsum board - F19k F19 with - • steel furring channels spaced 400 mm o.c. - • 12.7 mm regular gypsum board - F19k F19 with - • steel furring channels spaced 400 mm o.c. - • 12.7 mm regular gypsum board - F19i F19 with - • steel furring channels spaced 600 mm o.c. -	F19j • steel furring channels spaced 600 mm o.c. - 55 • 12.7 mm regular gypsum board - 55 F19k F19 with • absorptive material in cavity - 56 F19k F19 with • absorptive material in cavity - 56 F19k F19 with • absorptive material in cavity - 56 F19k F19 with • absorptive material in cavity - 56 F19l • steel furring channels spaced 600 mm o.c. - 58

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F20 ⁽¹³⁾	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood I-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 300, 400 or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00120A
	F20a	 F20 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	45 min ⁽²²⁾	56	31
	F20b	 F20 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	58	31
	F20c	 F20 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] (17)(22)	63	39
	F20d	 F20 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	65	39
	F20e	 F20 with wood joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽¹⁹⁾	64(19)	40
	F20f ⁽²⁰⁾	 F20 with wood I-joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 300 mm o.c. 15.9 mm Type X gypsum board 	1 h ⁽¹⁹⁾	65(19)	40
	F20g	 F20 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	55	30
	F20h	 F20 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	57	30

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F20i	 F20 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	62	38
	F20j	F20 withabsorptive material in cavityresilient metal channels spaced 600 mm o.c.12.7 mm Type X gypsum board	_	64	38
	F20k	 F20 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	54	30
	F20I	 F20 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	56	30
	F20m	F20 withabsorptive material in cavityresilient metal channels spaced 400 mm o.c.12.7 mm regular gypsum board	-	61	38
	F20n	 F20 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	63	38
	F21 ⁽¹³⁾	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood joists or wood l-joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00121A
	F21a ⁽¹⁶⁾	 F21 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	60	33
	F21b ⁽¹⁶⁾	 F21 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	62	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F21c ⁽¹⁶⁾	 F21 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	67 [68] ⁽¹⁸⁾	41 [42] ⁽¹⁸⁾
	F21d ⁽¹⁶⁾	 F21 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	69 [70] ⁽¹⁸⁾	41 [42] ⁽¹⁸⁾
	F21e ⁽¹⁶⁾	 F21 with wood joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	[1.5 h] ⁽²¹⁾	68 ⁽²¹⁾	42
	F21f ⁽²⁰⁾	 F21 with wood I-joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 300 mm o.c. 15.9 mm Type X gypsum board 	[1.5 h] ⁽²¹⁾	68(21)	42
	F21g ⁽¹⁶⁾	 F21 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	59	32
	F21h ⁽¹⁶⁾	 F21 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	61	32
	F21i ⁽¹⁶⁾	 F21 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h [1.5 h] ⁽¹⁸⁾	66 [67] ⁽¹⁸⁾	40
	F21j ⁽¹⁶⁾	 F21 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	68	40
	F21k	 F21 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	59	32
	F21I	 F21 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	61	32

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F21m	 F21 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	66	40
	F21n	 F21 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	68	40
Wood Floor Trusses ⁽²³⁾	F22	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer gypsum board on ceiling side 			GC00122A
	F22a	F22 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	_	29	27
	F22b	F22 withabsorptive material in cavity15.9 mm Type X gypsum board	-	31	30
	F22c	F22 withno absorptive material in cavity12.7 mm Type X gypsum board	_	28	26
	F22d	F22 withabsorptive material in cavity12.7 mm Type X gypsum board	_	30	29
	F22e	F22 withno absorptive material in cavity12.7 mm regular gypsum board	_	27	25
	F22f	F22 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	31	28
	F23	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00123A

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F23a	 F23 with wood trusses spaced 400 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	34	31
	F23b	 F23 with wood trusses spaced 600 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	35	31
	F23c	 F23 with wood trusses spaced 400 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	36	34
	F23d	 F23 with wood trusses spaced 600 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min	37	34
	F23e	F23 withwood trusses spaced 400 mm o.c.no absorptive material in cavity12.7 mm Type X gypsum board	1 h	32	30
	F23f	 F23 with wood trusses spaced 600 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	33	30
	F23g	F23 withabsorptive material in cavity12.7 mm Type X gypsum board	-	34	33
	F23h	F23 withno absorptive material in cavity12.7 mm regular gypsum board	_	32	30
	F23i	F23 with • absorptive material in cavity • 12.7 mm regular gypsum board	_	34	33
	F24	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00124A

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F24a	 F24 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	35	27
	F24b	 F24 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	37	30
	F24c	 F24 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	38	30
	F24d	 F24 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	40	33
	F24e	 F24 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	33	26
	F24f	 F24 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	36	29
	F24g	 F24 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	37	29
	F24h	 F24 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	39	32
	F24i	 F24 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	33	25
	F24j	 F24 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	35	28

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F24k	F24 withabsorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm regular gypsum board	-	36	28
	F24I	 F24 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	38	31
	F25	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00125A
	F25a	 F25 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	40	32
	F25b	 F25 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	42	34
	F25c	 F25 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	43	35
	F25d	 F25 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	45	37
	F25e	 F25 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	38	30
	F25f	 F25 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	40	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F25g	F25 withabsorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm Type X gypsum board	1 h	41	33
	F25h	F25 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm Type X gypsum board	45 min [1 h] ⁽¹⁷⁾	43	36
	F25i	 F25 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	38	30
	F25j	F25 withno absorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	_	40	33
	F25k	 F25 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	41	33
	F25I	F25 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	-	43	36
	F26	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board attached directly to trusses on ceiling side resilient metal channels spaced 400 mm or 600 mm o.c. attached to trusses through the gypsum board 1 layer of gypsum board attached to resilient metal channels 			GC00126A
	F26a	F26 with • no absorptive material in cavity • 15.9 mm Type X gypsum board • resilient metal channels • 15.9 mm Type X gypsum board	-	35	27

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F26b	 F26 with absorptive material in cavity 15.9 mm Type X gypsum board resilient metal channels 15.9 mm Type X gypsum board 	_	37	30
	F26c	 F26 with no absorptive material in cavity 12.7 mm Type X gypsum board resilient metal channels 12.7 mm Type X gypsum board 	_	35	27
	F26d	 F26 with absorptive material in cavity 12.7 mm Type X gypsum board resilient metal channels 12.7 mm Type X gypsum board 	_	37	30
	F26e	 F26 with no absorptive material in cavity 12.7 mm regular gypsum board resilient metal channels 12.7 mm regular gypsum board 	_	32	26
	F26f	 F26 with absorptive material in cavity 12.7 mm regular gypsum board resilient metal channels 12.7 mm regular gypsum board 	_	35	28
	F27	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00127A
	F27a	 F27 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	41	33
	F27b	 F27 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	43	36

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F27c	 F27 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	48	41
	F27d	 F27 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	50	44
	F27e	 F27 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	40	32
	F27f	 F27 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	42	35
	F27g	 F27 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	47	40
	F27h	 F27 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	49	43
	F27i	 F27 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	39	31
	F27j	 F27 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	41	34
	F27k	 F27 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	46	39
	F27I	 F27 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	48	42

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F28	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00128A
	F28a	 F28 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	46	38
	F28b	 F28 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	48	40
	F28c	 F28 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	54	46
	F28d	 F28 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	55	48
	F28e	 F28 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	44	36
	F28f	 F28 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	46	39
	F28g	 F28 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	51	44
	F28h	 F28 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	53	47
	F28i	 F28 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	44	36

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F28j	 F28 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	46	39
	F28k	F28 withabsorptive material in cavityresilient metal channels spaced 400 mm o.c.12.7 mm regular gypsum board	-	51	44
	F28I	 F28 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	53	47
		one subfloor layer 11 mm sanded plywood, or			
	F29	 OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 		GC00129A	
	F29a	 F29 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	44	35
	F29b	 F29 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	46	37
	F29c	 F29 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	51	43
	F29d	 F29 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	53	45
	F29e	 F29 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	43	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F29f	 F29 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	45	36
	F29g	 F29 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	50	41
	F29h	 F29 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	52	44
	F29i	 F29 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	42	34
	F29j	 F29 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	44	36
	F29k	 F29 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	49	41
	F29I	 F29 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	51	44
	F30	 one subfloor layer 11 mm sanded plywood, or OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00130A
	F30a	 F30 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	49	39

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F30b	 F30 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	51	42
	F30c	 F30 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽²⁵⁾	56 [58] ⁽²⁵⁾	47 [50] ⁽²⁵⁾
	F30d	 F30 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	58	50
	F30e	 F30 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	47	38
	F30f	 F30 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	49	40
	F30g	 F30 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	54	46
	F30h	 F30 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	56	48
	F30i	 F30 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	47	37
	F30j	 F30 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	49	40
	F30k	 F30 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	54	45

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F30I	 F30 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	56	48
	F31	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			GC00131A
		F31 with			
	F31a	 no absorptive material in cavity 15.9 mm Type X gypsum board 	-	41	17
	F31b	F31 with • absorptive material in cavity • 15.9 mm Type X gypsum board	_	43	20
	F31c	F31 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	-	40	17
	F31d	F31 with • absorptive material in cavity • 12.7 mm Type X gypsum board	-	42	20
	F31e	F31 with no absorptive material in cavity 12.7 mm regular gypsum board 	-	39	16
	F31f	F31 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	41	19
	F32	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00132A
	F32a	F32 withwood trusses spaced 400 mm o.c.no absorptive material in cavity15.9 mm Type X gypsum board	1 h	46	20

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F32b	 F32 with wood trusses spaced 600 mm o.c. no absorptive material in cavity 15.9 mm Type X gypsum board 	1 h	47	20
	F32c	 F32 with wood trusses spaced 400 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	48	23
	F32d	 F32 with wood trusses spaced 600 mm o.c. absorptive material in cavity 15.9 mm Type X gypsum board 	45 min	49	23
	F32e	F32 withwood trusses spaced 400 mm o.c.no absorptive material in cavity12.7 mm Type X gypsum board	1 h	44	19
	F32f	 F32 with wood trusses spaced 600 mm o.c. no absorptive material in cavity 12.7 mm Type X gypsum board 	45 min	45	19
	F32g	F32 with • absorptive material in cavity • 12.7 mm Type X gypsum board	_	46	19
	F32h	F32 with • no absorptive material in cavity • 12.7 mm regular gypsum board	_	44	19
	F32i	F32 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	46	22
		• 25 mm quaqum concrete tenning (et leget			
	F33	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 	GC00133A		GC00133A
	F33a	 F33 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	53	26

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F33b	 F33 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	55	26
	F33c	 F33 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	60	34
	F33d	 F33 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	62	34
	F33e	 F33 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	52	26
	F33f	 F33 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	54	26
	F33g	 F33 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	59	34
	F33h	 F33 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	61	34
	F33i	 F33 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	51	25
	F33j	 F33 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	53	25
	F33k	 F33 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	58	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F33I	 F33 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	60	33
	F34	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00134A
	F34a	 F34 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	57	29
	F34b	 F34 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	60	29
	F34c	 F34 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5 h] ⁽²⁵⁾	65 [67] ⁽²⁵⁾	37
	F34d	 F34 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	67	37
	F34e	 F34 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	56	28
	F34f	 F34 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	58	28
	F34g	 F34 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	63	36

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F34h	 F34 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁷⁾	65	36
	F34i	 F34 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	56	28
	F34j	 F34 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	58	28
	F34k	 F34 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	63	36
	F34I	 F34 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	65	36
	F35	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			GC00135A
	F35a	F35 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	_	45	26
	F35b	F35 with • absorptive material in cavity • 15.9 mm Type X gypsum board	_	47	29
	F35c	F35 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	_	43	26
	F35d	F35 with • absorptive material in cavity • 12.7 mm Type X gypsum board	-	45	29
	F35e	F35 with • no absorptive material in cavity • 12.7 mm regular gypsum board	_	43	26

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁶⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F35f	F35 withabsorptive material in cavity12.7 mm regular gypsum board	_	45	29
	F36	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00136A
	F36a	F36 with • wood trusses spaced 400 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board	1 h	49	28
	F36b	F36 with • wood trusses spaced 600 mm o.c. • no absorptive material in cavity • 15.9 mm Type X gypsum board	1 h	50	28
	F36c	F36 withwood trusses spaced 400 mm o.c.absorptive material in cavity15.9 mm Type X gypsum board	45 min [1 h] ⁽¹⁴⁾	51	31
	F36d	F36 withwood trusses spaced 600 mm o.c.absorptive material in cavity15.9 mm Type X gypsum board	45 min	52	31
	F36e	F36 withwood trusses spaced 400 mm o.c.no absorptive material in cavity12.7 mm Type X gypsum board	1 h	48	27
	F36f	F36 withwood trusses spaced 600 mm o.c.no absorptive material in cavity12.7 mm Type X gypsum board	45 min	49	27
	F36g	F36 with absorptive material in cavity 12.7 mm Type X gypsum board 	-	50	30
	F36h	F36 with no absorptive material in cavity 12.7 mm regular gypsum board 	_	47	27

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F36i	F36 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	49	30
	F37	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00137A
	F37a	 F37 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	45 min	56	35
	F37b	 F37 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	59	35
	F37c	 F37 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	63	43
	F37d	 F37 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	66	43
	F37e	 F37 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	55	35
	F37f	 F37 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	_	57	35
	F37g	 F37 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	62	43

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁶⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F37h	 F37 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	_	64	43
	F37i	 F37 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	54	35
	F37j	 F37 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	57	35
	F37k	 F37 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	61	43
	F37I	 F37 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	64	43
	F38	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on wood trusses spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 		GC00138A	
	F38a	 F38 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	61	37
	F38b	 F38 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	63	37
	F38c	 F38 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h [1.5] ⁽²⁵⁾	68 [71] ⁽²⁵⁾	45

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F38d	 F38 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	70	45
	F38e	 F38 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	60	36
	F38f	 F38 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	62	36
	F38g	 F38 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	67	44
	F38h	 F38 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	69	44
	F38i	 F38 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	59	36
	F38j	 F38 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	61	36
	F38k	 F38 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	66	44
	F38I	 F38 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	68	44
Cold-Formed- Steel Floor Joists ⁽²⁶⁾	F39	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			GC00139A

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F39a	F39 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	-	29	27
	F39b	F39 with • absorptive material in cavity • 15.9 mm Type X gypsum board	-	31	30
	F39c	F39 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	-	27	26
	F39d	F39 with • absorptive material in cavity • 12.7 mm Type X gypsum board	-	29	29
	F39e	F39 withno absorptive material in cavity12.7 mm regular gypsum board	-	27	25
	F39f	F39 with • absorptive material in cavity • 12.7 mm regular gypsum board	_	29	28
	F40	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00140A
	F40a	F40 withsteel joists spaced 400 mm o.c.no absorptive material in cavity15.9 mm Type X gypsum board	1 h	34	31
	F40b	F40 withsteel joists spaced 600 mm o.c.no absorptive material in cavity15.9 mm Type X gypsum board	45 min	35	31
	F40c	F40 withsteel joists spaced 400 mm o.c.absorptive material in cavity15.9 mm Type X gypsum board	45 min	36	34
	F40d	F40 withsteel joists spaced 600 mm o.c.absorptive material in cavity15.9 mm Type X gypsum board	45 min	37	34

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F40e	F40 withsteel joists spaced 400 mm o.c.no absorptive material in cavity12.7 mm Type X gypsum board	1 h	32	30
	F40f	F40 withsteel joists spaced 600 mm o.c.no absorptive material in cavity12.7 mm Type X gypsum board	45 min	33	30
	F40g	F40 withsteel joists spaced 400 mm o.c.absorptive material in cavity12.7 mm Type X gypsum board	45 min	34	33
	F40h	F40 withsteel joists spaced 600 mm o.c.absorptive material in cavity12.7 mm Type X gypsum board	45 min	35	33
	F40i	F40 withno absorptive material in cavity12.7 mm regular gypsum board	-	31	30
	F40j	F40 with • absorptive material in cavity • 12.7 mm regular gypsum board	-	33	33
	F41	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00141A
	F41a	 F41 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	34	27
	F41b	 F41 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	37	30
	F41c	 F41 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	37	30

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F41d	 F41 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min	40	33
	F41e	 F41 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	33	26
	F41f	 F41 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	35	29
	F41g	 F41 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	36	29
	F41h	F41 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm Type X gypsum board	30 min	38	32
	F41i	F41 withno absorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm regular gypsum board	< 30 min	32	25
	F41j	 F41 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	< 30 min	35	28
	F41k	F41 withabsorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm regular gypsum board	< 30 min	35	28
	F41I	F41 withabsorptive material in cavitysteel furring channels spaced 600 mm o.c.12.7 mm regular gypsum board	< 30 min	38	31
	F42	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity steel furring channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00142A

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F42a	 F42 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	39	32
	F42b	 F42 with steel joists spaced 400 mm o.c. no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min	42	34
	F42c	 F42 with steel joists spaced 600 mm o.c. no absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min	43	34
	F42d	 F42 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	42	35
	F42e	 F42 with steel joists spaced 400 mm o.c. absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽²⁷⁾	45	37
	F42f	 F42 with steel joists spaced 600 mm o.c. absorptive material in cavity steel furring channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	46	37
	F42g	 F42 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	38	30
	F42h	 F42 with steel joists spaced 400 mm o.c. no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min	40	33
	F42i	 F42 with steel joists spaced 600 mm o.c. no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min	41	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F42j	 F42 with absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	41	33
	F42k	 F42 with steel joists spaced 400 mm o.c. absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽²⁷⁾	43	36
	F42I	 F42 with steel joists spaced 600 mm o.c. absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	44	36
	F42m	 F42 with no absorptive material in cavity steel furring channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	37	30
	F42n	 F42 with no absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	39	33
	F42o	F42 withabsorptive material in cavitysteel furring channels spaced 400 mm o.c.12.7 mm regular gypsum board	_	40	33
	F42p	 F42 with absorptive material in cavity steel furring channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	42	36
	F43	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board attached directly to joists on ceiling side resilient metal channels spaced 400 mm or 600 mm o.c. attached to joists through the gypsum board 1 layer of gypsum board attached to resilient metal channels 		GC00143A	

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F43a	 F43 with no absorptive material in cavity 15.9 mm Type X gypsum board resilient metal channels 15.9 mm Type X gypsum board 	1 h	35	27
	F43b	 F43 with absorptive material in cavity 15.9 mm Type X gypsum board resilient metal channels 15.9 mm Type X gypsum board 	1 h	37	30
	F43c	 F43 with no absorptive material in cavity 12.7 mm Type X gypsum board resilient metal channels 12.7 mm Type X gypsum board 	1 h	35	27
	F43d	 F43 with absorptive material in cavity 12.7 mm Type X gypsum board resilient metal channels 12.7 mm Type X gypsum board 	1 h	37	30
	F43e	 F43 with no absorptive material in cavity 12.7 mm regular gypsum board resilient metal channels 12.7 mm regular gypsum board 	_	32	26
	F43f	 F43 with absorptive material in cavity 12.7 mm regular gypsum board resilient metal channels 12.7 mm regular gypsum board 	-	35	28
	F44	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00144A
	F44a	 F44 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	40	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F44b	 F44 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	43	36
	F44c	 F44 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	47	41
	F44d	 F44 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min	50	44
	F44e	 F44 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	39	32
	F44f	 F44 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	41	35
	F44g	 F44 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min [45 min] ⁽²⁴⁾	46	40
	F44h	 F44 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	30 min	48	43
	F44i	 F44 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	< 30 min	38	31
	F44j	 F44 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	< 30 min	41	34
	F44k	 F44 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	< 30 min	45	39

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F44I	 F44 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	< 30 min	48	42
	F45	 subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00145A
	F45a	 F45 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	45	38
	F45b	 F45 with steel joists spaced 400 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min	48	40
	F45c	 F45 with steel joists spaced 600 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min	49	40
	F45d	 F45 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	52	46
	F45e	 F45 with steel joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽²⁷⁾	55	48
	F45f	 F45 with steel joists spaced 600 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	56	48
	F45g	 F45 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	44	36

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F45h	 F45 with steel joists spaced 400 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min	46	39
	F45i	 F45 with steel joists spaced 600 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min	47	39
	F45j	 F45 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	51	44
	F45k	 F45 with steel joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽²⁷⁾	53	47
	F45I	 F45 with steel joists spaced 600 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽¹⁴⁾	54	47
	F45m	 F45 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	43	36
	F45n	 F45 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	45	39
	F45o	 F45 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	50	44
	F45p	 F45 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	52	47

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F46	 one subfloor layer of 11 mm sanded plywood, or OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00146A
	F46a	 F46 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	43	34
	F46b	 F46 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	46	37
	F46c	 F46 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	50	42
	F46d	 F46 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	53	45
	F46e	 F46 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	42	33
	F46f	 F46 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	_	44	36
	F46g	 F46 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	49	41
	F46h	 F46 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	51	44

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F46i	 F46 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	41	33
	F46j	 F46 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	44	36
	F46k	 F46 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	48	41
	F46I	 F46 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	51	44
	F47	 one subfloor layer of 15.5 mm plywood, or OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 400 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 	GC00146A		
	F47a	 F47 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min	45	35
	F47b	 F47 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	30 min	47	38
	F47c	 F47 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	30 min [45 min] ⁽¹⁷⁾ [1 h] ⁽²⁷⁾	51	45
	F47d	 F47 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	[30 min] ⁽¹⁷⁾ [45 min] ⁽²⁷⁾	53	47

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F47e	 F47 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	30 min	43	44
	F47f	 F47 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	45	47
	F47g	F47 withabsorptive material in cavityresilient metal channels spaced 400 mm o.c.12.7 mm Type X gypsum board	[30 min] ⁽¹⁷⁾ [45 min] ⁽²⁷⁾	50	43
	F47h	 F47 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	52	46
	F48	 one subfloor layer of 11 mm sanded plywood, or OSB or waferboard one subfloor layer of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00147A
	F48a	 F48 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	48	39
	F48b	 F48 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	50	42
	F48c	 F48 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	56	47
	F48d	 F48 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	57	50

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F48e	 F48 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	47	38
	F48f	 F48 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	49	40
	F48g	 F48 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	54	46
	F48h	 F48 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	56	48
	F48i	 F48 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	46	37
	F48j	 F48 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	48	40
	F48k	 F48 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	53	45
	F48I	 F48 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	55	48
	F49	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 1 layer of gypsum board on ceiling side 			GC00148A
	F49a	F49 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	-	40	13

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F49b	F49 with • absorptive material in cavity • 15.9 mm Type X gypsum board	-	42	16
	F49c	F49 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	-	39	12
	F49d	F49 withabsorptive material in cavity12.7 mm Type X gypsum board	-	41	15
	F49e	F49 withno absorptive material in cavity12.7 mm regular gypsum board	-	38	12
	F49f	F49 withabsorptive material in cavity12.7 mm regular gypsum board	-	40	15
	F50	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity 2 layers of gypsum board on ceiling side 			GC00149A
	F50a	F50 withno absorptive material in cavity15.9 mm Type X gypsum board	-	45	16
	F50b	F50 withabsorptive material in cavity15.9 mm Type X gypsum board	-	47	19
	F50c	F50 withno absorptive material in cavity12.7 mm Type X gypsum board	-	44	15
	F50d	F50 with • absorptive material in cavity • 12.7 mm Type X gypsum board	-	46	18
	F50e	F50 withno absorptive material in cavity12.7 mm regular gypsum board	-	43	14
	F50f	F50 with absorptive material in cavity 12.7 mm regular gypsum board 	_	45	17

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F51	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00150A
	F51a	 F51 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	52	22
	F51b	 F51 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	54	22
	F51c	 F51 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	59	30
	F51d	 F51 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	61	30
	F51e	 F51 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	51	21
	F51f	 F51 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	53	21
	F51g	 F51 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	58	29
	F51h	 F51 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	60	29

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F51i	 F51 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	50	21
	F51j	 F51 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	52	21
	F51k	F51 withabsorptive material in cavityresilient metal channels spaced 400 mm o.c.12.7 mm regular gypsum board	-	57	29
	F51I	 F51 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	59	29
	F52	 25 mm gypsum-concrete topping (at least 44 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00151A
	F52a	 F52 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	57	25
	F52b	 F52 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	59	25
	F52c	 F52 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	64	33
	F52d	 F52 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽²⁴⁾	66	33

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F52e	 F52 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	55	24
	F52f	 F52 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	58	24
	F52g	 F52 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	62	32
	F52h	 F52 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽²⁴⁾	65	32
	F52i	 F52 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	55	23
	F52j	 F52 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	57	23
	F52k	 F52 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	62	31
	F52I	 F52 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	64	31
	F53	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00152A
	F53a	F53 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	-	44	22

Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁶⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
F53b	F53 with • absorptive material in cavity • 15.9 mm Type X gypsum board	-	46	25
F53c	F53 with • no absorptive material in cavity • 12.7 mm Type X gypsum board	_	42	21
F53d	F53 with • absorptive material in cavity • 12.7 mm Type X gypsum board	-	44	24
F53e	F53 withno absorptive material in cavity12.7 mm regular gypsum board	_	42	21
F53f	F53 with • absorptive material in cavity • 12.7 mm regular gypsum board	_	44	24
F54	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. 2 layers of gypsum board on ceiling side 	GC00153A		GC00153A
F54a	F54 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	-	48	24
F54b	F54 with • absorptive material in cavity • 15.9 mm Type X gypsum board	-	50	27
F54c	F54 withno absorptive material in cavity12.7 mm Type X gypsum board	_	47	23
F54d	F54 withabsorptive material in cavity12.7 mm Type X gypsum board	-	49	26
F54e	F54 withno absorptive material in cavity12.7 mm regular gypsum board	-	47	23
F54f	F54 with • absorptive material in cavity • 12.7 mm regular gypsum board	_	49	26
	Number F53b F53c F53d F53d F53e F53f F54 F54a F54b F54c F54c F54d F54e	NumberDescription of the second s	NumberDescription-oncomeRatingremercineF53F53 with • absorptive material in cavity • 15.9 mm Type X gypsum board-F53F53 with • no absorptive material in cavity • 12.7 mm Type X gypsum board-F53dF53 with • absorptive material in cavity • 12.7 mm Type X gypsum board-F53dF53 with • absorptive material in cavity • 12.7 mm Type X gypsum board-F53eF53 with • no absorptive material in cavity • 12.7 mm regular gypsum board-F53f* absorptive material in cavity • 12.7 mm regular gypsum board-F54F53 with • absorptive material in cavity • 12.7 mm regular gypsum board-F54F54 with • no absorptive material in cavity • 12.7 mm regular gypsum board-F54F54 with • no absorptive material in cavity • 12.7 mm regular gypsum board-F54F54 with • no absorptive material in cavity • 15.9 mm Type X gypsum board-F54F54 with • no absorptive material in cavity • 15.9 mm Type X gypsum board-F54F54 with • no absorptive material in cavity • 15.9 mm Type X gypsum board-F54F54 with • absorptive material in cavity • 12.7 mm Type X gypsum board-F54F54 with • absorptive material in cavity • 12.7 mm Type X gypsum board-F54F54 with • absorptive material in cavity • 12.7 mm Type X gypsum board-F54F54 with • absorptive material in cavity • 12.7 mm Type X gypsum board-F54F54 with • absorptive material in	Assembly Number Description ⁽²⁰⁰⁴⁾ Fire-Resistance Rating ⁽³⁰⁰⁷⁰⁰⁾ Transmission Class ⁽³⁰⁰⁷⁰⁰⁾ (STC) F53 F53 with • absorptive material in cavity • 15.9 mm Type X gypsum board – 46 F53 F53 with • no absorptive material in cavity • 12.7 mm Type X gypsum board – 42 F53 F53 with • absorptive material in cavity • 12.7 mm Type X gypsum board – 44 F53 * f53 with • absorptive material in cavity • 12.7 mm Type X gypsum board – 44 F53 * f53 with • absorptive material in cavity • 12.7 mm Type X gypsum board – 42 F53 * f53 with • absorptive material in cavity • 12.7 mm regular gypsum board – 44 F53 * f53 with • absorptive material in cavity • 12.7 mm regular gypsum board – 44 F54 * f53 with • subtor of 15.5 mm plywood, OSB or waferboard, or 17 mm Tongue and groove lumber • on steel joists spaced not more than 600 mm or. • 2 layers of gypsum board – 48 F54 * f54 with • no absorptive material in cavity • 15.9 mm Type X gypsum board – 48 F54b * f54 with • no absorptive material in cavity • 15.9 mm Type X gypsum board – 47 F54d * absorptive mate

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F55	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00154A
	F55a	 F55 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	56	31
	F55b	 F55 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	58	31
	F55c	 F55 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	_	63	39
	F55d	 F55 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	65	39
	F55e	 F55 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	54	30
	F55f	 F55 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	56	30
	F55g	 F55 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	_	61	38
	F55h	 F55 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	63	38
	F55i	 F55 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	54	30

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F55j	 F55 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	56	30
	F55k	 F55 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	61	38
	F55I	 F55 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	63	38
	F56	 38 mm concrete topping (at least 70 kg/m²) subfloor of 15.5 mm plywood, OSB or waferboard, or 17 mm tongue and groove lumber on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			GC00155A
	F56a	 F56 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	60	33
	F56b	 F56 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	62	33
	F56c	 F56 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	67	41
	F56d	 F56 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽²⁴⁾	69	41
	F56e	 F56 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	59	32

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F56f	 F56 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	61	32
	F56g	 F56 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	66	40
	F56h	 F56 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽²⁴⁾	68	40
	F56i	 F56 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	58	32
	F56j	 F56 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	61	32
	F56k	 F56 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	65	40
	F56I	 F56 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	68	40
	F57	 50 mm concrete 0.46 mm metal pan with 19 mm rib on steel joists spaced not more than 600 mm o.c. 1 layer of gypsum board on ceiling side 			
	F57a	F57 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	_	45	26
	F57b	F57 with • absorptive material in cavity • 15.9 mm Type X gypsum board	_	47	29

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F57c	F57 withno absorptive material in cavity12.7 mm Type X gypsum board	_	44	25
	F57d	F57 withabsorptive material in cavity12.7 mm Type X gypsum board	_	46	28
	F57e	F57 with • no absorptive material in cavity • 12.7 mm regular gypsum board	_	43	25
	F57f	F57 withabsorptive material in cavity12.7 mm regular gypsum board	-	45	28
	F58	 50 mm concrete 0.38 mm metal pan with 16 mm rib on steel joists spaced not more than 600 mm o.c. 2 layers of gypsum board on ceiling side 	GC00157A		
	F58a	F58 with • no absorptive material in cavity • 15.9 mm Type X gypsum board	_	50	27
	F58b	F58 withabsorptive material in cavity15.9 mm Type X gypsum board	_	52	30
	F58c	F58 withno absorptive material in cavity12.7 mm Type X gypsum board	-	48	27
	F58d	F58 with • absorptive material in cavity • 12.7 mm Type X gypsum board	_	50	30
	F58e	F58 withno absorptive material in cavity12.7 mm regular gypsum board	_	48	27
	F58f	F58 withabsorptive material in cavity12.7 mm regular gypsum board	_	50	30

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F59	 50 mm concrete 0.38 mm metal pan with 16 mm rib on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 1 layer of gypsum board on ceiling side 			GC00158A
	F59a	 F59 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	57	35
	F59b	 F59 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	59	35
	F59c	 F59 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	-	64	43
	F59d	 F59 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	66	43
	F59e	 F59 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	56	34
	F59f	 F59 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	56	34
	F59g	 F59 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	-	63	42
	F59h	 F59 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	65	42
	F59i	 F59 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	55	34

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F59j	 F59 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	57	34
	F59k	 F59 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	-	62	42
	F59I	 F59 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	64	42
	F60	 50 mm concrete 0.46 mm metal pan with a 19 mm rib on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			
	F60a	 F60 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	62	36
	F60b	 F60 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	64	36
	F60c	 F60 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	69	44
	F60d	 F60 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	45 min [1 h] ⁽²⁴⁾	71	44
	F60e	 F60 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1h	60	36

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁶⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F60f	 F60 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	62	36
	F60g	 F60 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	67	44
	F60h	 F60 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	45 min [1 h] ⁽²⁴⁾	69	44
	F60i	 F60 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	60	36
	F60j	 F60 with no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	_	62	36
	F60k	 F60 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm regular gypsum board 	_	67	44
	F60I	 F60 with absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm regular gypsum board 	-	69	44
	F61	 50 mm concrete 0.38 mm metal pan with 16 mm rib on steel joists spaced not more than 600 mm o.c. with or without absorptive material in cavity resilient metal channels spaced 400 mm or 600 mm o.c. 2 layers of gypsum board on ceiling side 			
	F61a	 F61 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	62	32

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F61b	 F61 with steel joists spaced 400 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1 h	64	32
	F61c	 F61 with steel joists spaced 600 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	_	65	29
	F61d	 F61 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 15.9 mm Type X gypsum board 	1 h	68	37
	F61e	 F61 with steel joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	1h	66	34
	F61f	 F61 with steel joists spaced 600 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 15.9 mm Type X gypsum board 	-	71	34
	F61g	 F61 with no absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	62	32
	F61h	 F61 with steel joists spaced 400 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	64	32
	F61i	 F61 with steel joists spaced 600 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	-	64	28
	F61j	 F61 with absorptive material in cavity resilient metal channels spaced 400 mm o.c. 12.7 mm Type X gypsum board 	1 h	68	36

Type of Assembly	Assembly Number	Description ⁽²⁾⁽³⁾⁽⁴⁾	Fire-Resistance Rating ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Typical Sound Transmission Class ⁽⁵⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾ (STC)	Typical Impact Insulation Class ⁽⁵⁾⁽⁹⁾⁽¹¹⁾ (IIC)
	F61k	 F61 with steel joists spaced 400 mm o.c. absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	1 h	64	32
	F61I	 F61 with steel joists spaced 600 mm o.c. no absorptive material in cavity resilient metal channels spaced 600 mm o.c. 12.7 mm Type X gypsum board 	_	70	34
Roofs					
Wood Roof Trusses	R1	wood trusses spaced not more than 600 mm o.c.1 layer 15.9 mm Type X gypsum board	45 min	_	_
Rating Provideo	d by Membrane C	Inly			
	M1	 supporting members spaced not more than 600 mm o.c. 1 layer 15.9 mm Type X gypsum board 	30 min	-	_
	M2	 supporting members spaced not more than 600 mm o.c. 2 layers 15.9 mm Type X gypsum board 	1 h	-	-

Notes to Table 9.10.3.1.-B:

- (2) For assemblies with a ceiling consisting of a single layer of gypsum board on resilient metal channels to obtain the listed ratings, the resilient metal channel arrangement at the gypsum board butt end joints should be as shown in Figure A-9.10.3.1.-A.
- (3) For assemblies with a ceiling consisting of 2 layers of gypsum board on resilient metal channels to obtain the listed ratings, the fastener and resilient metal channel arrangement at the gypsum board butt end joints should be as shown in Figure A-9.10.3.1.-B.
- (4) The *fire-resistance rating* and *sound transmission class* values given are for a minimum thickness of subfloor or deck as shown. Minimum subfloor thickness required is determined by structural member spacing (see Table 9.23.15.5.-A). Thicker subflooring or decking is also acceptable.
- (5) Sound absorptive material includes
 - (i) fibre processed from rock, slag, or glass, and
 - (ii) loose-fill or spray-applied cellulose fibre.

To obtain the listed **sound transmission class** rating, the nominal insulation thickness is 150 mm for rock, slag, or glass fibres or loose-fill cellulose fibre, and 90 mm for spray-applied cellulose fibre, unless otherwise specified. Absorptive material will affect the **sound transmission class** by approximately adding or subtracting 1 per 50 mm change of thickness. However, no additional **sound transmission class** value is achieved by adding a greater thickness of insulation than the depth of the assembly.

- (6) The *fire-resistance rating* and *sound transmission class* values are based on the spacing of ceiling supports as noted. (See also Table Note (10).) A narrower spacing will be detrimental to the *sound transmission class* rating, but not to the *fire-resistance rating*.
- (7) To obtain the listed rating, the type and spacing of fasteners are as described in and installed in accordance with Subsection 9.29.5. or CSA A82.31-M:
 - (i) fastener distance to board edges and butt ends should be not less than 38 mm, except for fasteners on the butt ends of the base layer in ceilings with two layers (see Figure A-9.10.3.1.-B); and
 - (ii) fasteners are spaced not more than 300 mm o.c.
- (8) See D-1.2.1.(2) in Appendix D for the significance of *fire-resistance ratings*.
- (9) The sound transmission class values given in the Table are for the minimum depth of structural member noted in the description and applicable table notes. To obtain sound transmission class values for structural members deeper than that minimum, add 1 to the sound transmission class value in the Table for each 170 mm increase in structural member depth.
- (10) The sound transmission class values given in the Table are for structural member spacing of 300 mm o.c., unless otherwise noted in the description and applicable table notes. To obtain sound transmission class values for assemblies with structural members spaced more than 500 mm o.c., add 1 to the sound transmission class value in the Table.
- (11) The impact insulation class values given are for floor assemblies tested with no finished flooring.

⁽¹⁾ See Note A-9.10.3.1.

- (12) Wood floor joists are:
 - (i) wood joists with a minimum member size of 38 mm (width) × 235 mm (depth), except as otherwise noted (see Table Note (15)); or
 - (ii) wood I-joists with a minimum flange size of 38 mm × 38 mm, a minimum OSB or plywood web thickness of 9.5 mm, and a minimum joist depth of 241 mm.
- (13) Except where assemblies with wood I-joists are tested according to CAN/ULC-S101 the *fire-resistance rating* values apply only to I-joists that have been fabricated with a phenolic-based structural wood adhesive complying with CSA O112.10. For I-joists with flanges made of laminated veneer lumber (LVL), the *fire-resistance rating* values apply only where the adhesive used in the LVL fabrication is a phenolic-based structural wood adhesive complying with CSA O112.9.
- (14) The fire-resistance rating value within square brackets is achieved only where absorptive material includes spray-applied cellulose fibre with
 - (i) adhesive that is capable of providing a minimum cohesive/adhesive bond strength per unit area of 5 times the weight of the material under the test plate when tested in accordance with ASTM E 736,
 - (ii) a minimum density of 35 kg/m³, and
 - (iii) a minimum thickness of 90 mm on the underside of the subfloor or deck, of 90 mm on the sides of the structural members, and for cold-formed steel joists, of 13 mm on the underside of the bottom flange other than at resilient metal channel locations.
- (15) The fire-resistance rating value within square brackets only applies to assemblies with solid wood joists and is achieved only where absorptive material includes:
 - (i) fibre processed from rock or slag with a minimum thickness of 90 mm and a minimum surface area mass of 2.8 kg/m²; or
 - (ii) spray-applied cellulose fibre with a minimum density of 50 kg/m³ and a minimum depth of 90 mm on the underside of the subfloor and of 90 mm on the sides of the floor joists.
- (16) The *fire-resistance rating*, sound transmission class and impact insulation class values given are also applicable to assemblies with 38 mm (width) × 184 mm (depth) solid wood joists.
- (17) The fire-resistance rating value within square brackets is achieved only where absorptive material includes:
 - (i) fibre processed from rock or slag with a minimum thickness of 90 mm and a minimum surface area mass of 2.8 kg/m²; or
 - (ii) spray-applied cellulose fibre with a minimum density of 50 kg/m³ and a minimum depth of 90 mm on the underside of the subfloor and of 90 mm on the webs or the sides of the structural members.
- (18) The *fire-resistance rating*, sound transmission class and impact insulation class values within the square brackets only apply to assemblies with solid wood joists and are achieved only where absorptive material includes dry-blown cellulose fibre with a minimum density of 40 kg/m³ filling the entire cavity; the cellulose fibre is supported on zinc-coated (galvanized) steel poultry fence fabric conforming to ASTM A 390, which has 25-mm-wide hexagonal mesh openings and 0.81-mm-thick (20-gauge) wire and is attached to wood joists with metal staples having legs that are 50 mm long.
- (19) The fire-resistance rating and sound transmission class values are achieved only where absorptive material includes:
 - (i) fibre processed from rock or slag that fills the joist cavity and has a minimum surface area mass of 2.8 kg/m², and for structural members at least 270 mm in depth, the fibre includes three layers each of which has a minimum thickness of 90 mm; or
 - (ii) dry-blown cellulose fibre with a minimum density of 40 kg/m³ filling the entire cavity; the cellulose fibre is supported on zinc-coated (galvanized) steel poultry fence fabric conforming to ASTM A 390, which has 25-mm-wide hexagonal mesh openings and 0.81-mm-thick (20-gauge) wire and is attached to wood joists or wood I-joists with metal staples having legs that are 50 mm or 30 mm long, respectively.
- (20) The fire-resistance rating value only applies to assemblies with wood I-joists with flanges with a minimum thickness of 38 mm and a minimum width of 63 mm.
- (21) The fire-resistance rating and sound transmission class values are achieved only where absorptive material includes:
 - (i) fibre processed from rock or slag that fills the joist cavity and has a minimum surface area mass of 2.8 kg/m², and for structural members at least 270 mm in depth, the fibre includes three layers each of which has a minimum thickness of 90 mm; or
 - (ii) dry-blown cellulose fibre with a minimum density of 40 kg/m³ filling the entire cavity; the cellulose fibre is supported on zinc-coated (galvanized) steel poultry fence fabric conforming to ASTM A 390, which has 25-mm-wide hexagonal mesh openings and 0.81-mm-thick (20-gauge) wire and is attached to wood joists with metal staples having legs that are 50 mm long.
- (22) The *fire-resistance rating* values given only apply to assemblies with solid wood joists spaced not more than 400 mm o.c. No information is available for assemblies constructed with wood l-joists.
- (23) Wood floor trusses are:
 - (i) metal-plate-connected wood trusses with wood framing members not less than 38 mm × 64 mm, metal connector plates not less than 1 mm (nominal) thick with teeth not less than 8 mm long, and a minimum truss depth of 305 mm;
 - (ii) metal-web wood trusses with wood chords not less than 38 mm × 64 mm, V-shaped webs made from galvanized steel of 1 mm (nominal) thickness with plate areas having teeth not less than 8 mm long, and a minimum truss depth of 286 mm; or
 - (iii) fingerjoined wood trusses with glued fingerjoined connections, chord members not less than 38 mm × 64 mm, web members not less than 38 mm × 38 mm and a minimum truss depth of 330 mm, all of which is glued together with an R-14 phenol-resorcinol resin conforming to CSA O112.10.
- (24) The *fire-resistance rating* value within square brackets is achieved only where absorptive material includes fibre processed from rock or slag with a minimum thickness of 90 mm and a minimum surface area mass of 2.8 kg/m².
- (25) The *fire-resistance rating* and *sound transmission class* values within square brackets are achieved only where absorptive material includes dry-blown cellulose fibre with a minimum density of 40 kg/m³ filling the entire cavity; the cellulose fibre is supported on zinc-coated (galvanized) steel poultry fence fabric conforming to ASTM A 390, which has 25-mm-wide hexagonal mesh openings and 0.81-mm-thick (20-gauge) wire and is attached to wood trusses with metal staples having legs that are 38 mm long.
- (26) Cold-formed steel floor joists (C-shaped joists) are members with a minimum size of 41 mm (width) × 203 mm (depth) × 1.22 mm (material thickness).
- (27) The *fire-resistance rating* value within square brackets is achieved only where absorptive material includes spray-applied cellulose fibre with a minimum density of 50 kg/m³ and a minimum thickness of 90 mm on the underside of the subfloor, of 90 mm on the sides of the cold-formed steel floor joists, and of 13 mm on the underside of the bottom flange other than at resilient metal channel locations.