

Table 10.2a
Time assigned
for the contribu-
tion of protective
membranes on
the fire-exposed
side of wood-
framed walls.

Description of finish	Time, minutes	
	Loadbearing Walls	Non-loadbearing Walls
11.0 mm Douglas Fir plywood phenolic bonded	-	10 ¹
14.0 mm Douglas Fir plywood phenolic bonded	-	15 ¹
12.7 mm Type X gypsum wallboard	25 ²	25
15.9 mm Type X gypsum wallboard	40 ²	-
Double 12.7 mm Type X gypsum board ³	50	80

Note:

1. Applies to stud cavities filled with mineral wool conforming to CAN/ULC-S702, "Mineral Fibre Thermal Insulation for Buildings", and having a mass per unit area of not less than 2 kg/m², with no additional credit for insulation according to Table D-2.3.4.G in Appendix D of the NBC.
2. If resilient metal channels are installed with a single layer of gypsum board, the fire-resistance rating determined using this method for loadbearing walls is to be reduced by 10 minutes.
3. Resilient metal channels are permitted to be installed at a spacing of 400 mm o.c. with no effect on the rating of the walls assembly.

Table 10.2b
Time assigned
to gypsum board
membranes on
fire-exposed
side of wood-
frame floors.

Description of Finish	Resilient Metal Channels Installed ¹	Time, minutes
	12.7 mm Type X gypsum board	Yes – Spaced ≤ 400 mm o.c.
No – membrane directly applied		25 ³
15.9 mm Type X gypsum board	Yes – Spaced ≤ 400 mm o.c.	40 ²
	No – membrane directly applied	40 ³
Double 12.7 mm Type X gypsum board	Yes – Spaced ≤ 400 mm o.c.	50 ²
	No – membrane directly applied ⁴	50 ²
	Yes – Spaced at 600 mm o.c.	45 ²
	No – membrane directly applied ⁵	45 ²
Double 15.9 12.7 mm Type X gypsum board	Yes – Spaced ≤ 600 mm o.c.	60 ²
	No – membrane directly applied ⁵	60 ²

Note:

1. See Figures A-9.10.3.1.-A., -B. and -D. in Appendix A of the NBC for the attachment of single and double layers of gypsum board to resilient metal channels.
2. Applies to wood joists, wood trusses, and wood I-joists.
3. Applies to only wood joists and pre-fabricated metal-plate-connected wood trusses.
4. Structural members must be spaced not more than 400 mm o.c.
5. Structural members must be spaced not more than 600 mm o.c.

