

TEMPERATURE RISE LIMIT FOR DOORS

ONTARIO BUILDING CODE

3.1.8.15. Temperature Rise Limit for Doors

- (1) Except as permitted by Article 3.1.8.17., the maximum temperature rise on the opaque portion of the unexposed side of a door used as a closure in a fire separation in a location shown in Table 3.1.8.15., shall conform to the Table when tested in conformance with Sentence 3.1.8.4.(1)

3.1.8.16. Area Limits for Wired Glass and Glass Block

- (1) Except as permitted by Article 3.1.8.17., the maximum area of wired glass in a door used in the locations shown in Table 3.1.8.15. shall conform to the Table.
- (2) Except as permitted by Article 3.1.8.17., the maximum area of glass block and wired glass panels not in a door, used in the locations shown in Table 3.1.8.15., shall conform to the Table.

3.1.8.17. Temperature Rise and Area Limits Waived

- (1) The temperature rise limits and glass area limits required by Articles 3.1.8.15. and 3.1.8.16. are waived for a closure between an exit enclosure and an enclosed vestibule or corridor provided
- (a) the vestibule or corridor is separated from the remainder of the floor area by a fire separation having a fire-resistance rating not less than 45 min,
- (b) the fire separation required by Clause (a) contains no wired glass or glass block within 3 m (9 ft 10 in) of the closure into the exit enclosure, and
- (c) the vestibule or corridor contains no occupancy.

OBJECTIVE

Doors which are constructed to provide only a fire protection rating do not meet the temperature rise limit requirement. When specifying or installing doors in the location indicated in the table below, the doors must conform to the temperature rise limit criteria, in addition to the fire protection rating.

LOCATION	MIN. REQUIRED FIRE PROTECTION RATING OF DOOR	MAX. TEMP. RISE ON OPAQUE PORTION OF UNEXPOSED SIDE OF DOOR, °C (°F)	MAX. AREA OF WIRED GLASS IN DOOR, m ² (in ²)	MAX. AGGREGATE AREA OF GLASS BLOCK AND WIRED GLASS PANELS NOT IN DOOR, m ² (in ²)
BETWEEN A DEAD END CORRIDOR AND A N ADJACENT OCCUPANCY WHERE THE CORRIDOR PROVIDES THE ONLY ACCESS TO EXIT AND OS REQUIRED TO HAVE A FIRE RESISTANCE RATING	Less than 45 min	No limit	No limit	No limit
	45 min	250 (450) after 30 min	0.0645 (100)	0.0645 (100)
BETWEEN AN EXIT ENCLOSURE AND THE REMAINDER OF THE FLOOR AREA IN BUILDINGS NOT MORE THAN 3 STORIES IN BUILDING HEIGHT	All ratings	No limit	0.8 (1 240)	0.8 (1 240)
BETWEEN AN EXIT ENCLOSURE AND THE REMAINDER OF THE FLOOR AREA (EXCEPT AS PERMITTED ABOVE)	45 min	250 (450) after 30 min	0.0645 (100)	0.0645 (100)
	1.5 h	250 (450) after 1 h	0.0645 (100)	0.0645 (100)
	2 h	250 (450) after 1 h	0.0645 (100)	0.0645 (100)
IN A FIRE WALL	1.5 h	250 (450) after 30 min	0.0645 (100)	0
	3 h	250 (450) after 1 h	0	0