



A door company that is
Clearly Different
than the rest

Architectural Concepts / Door Collection

AC FIRE DOOR OFFERING



ARCHITECTURAL CONCEPTS

Architectural Concepts offers paint-grade and stain-grade doors in 20 Min and Paint Grade Doors through 90-minute fire ratings.

Our **Category A Fire Doors** utilize an intumescent strip that is buried in the poplar wood edge which expands and provides a smoke seal when heated.

	20-minute MDF	20-minute Wood	45- and 60-minute MDF	90-minute MDF
Category	Category A Category B Neutral Pressure	Category A Category B Neutral Pressure	Category A	Category A
Thickness	1-3/4" minimum	1-3/4" minimum	1-3/4" minimum	1-3/4" minimum
Maximum Width Single	4'0"	4'0"	4'0"	3'6"
Maximum Width Pair	8'0"	8'0"	7'0"	7'0"
Maximum Height	8'0"	8'0"	8'0"	8'0"
Fire Glass Max. Area	2,656 sq. inches	2,656 sq. inches	1,248 sq. inches (45 min.) 100 sq. in. - matching sticking (60 min) 1,216 sq. in. with vision kit	100 sq. in. - matching sticking 1,080 sq. in. with vision kit
Standards	ASTM E-152, NFPA 80, NFPA 252 (2017), UL10B, UL10C, CAN/ULC S104 (2015)			



Some door styles and panel profiles are not available in all fire ratings. Verify availability with Architectural Concepts. Some ratings require metal vision kit.

**Architectural
 Concepts**

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Positive Pressure Fire Door Overview

All Architectural Concepts fire doors comply with the following standards: UL 10-C (2016 positive pressure), NFPA 252 (2017), UL10-B (2016 neutral pressure) and CAN/ULC S104 (2015).

The standards for the design, testing and certification of fire rated openings changed when the International Building Code adopted the 1997 Uniform Building Code (UBC) 7-2-1997. With the adoption of this code came the requirements for fire rated openings to be tested under positive pressure in accordance with UL 10-C. Positive pressure testing of fire rated openings more accurately reflects the conditions of a real fire. However, the change from neutral pressure to positive pressure significantly impacted the dynamics of the door and hardware which is located above the 40" neutral pressure plane.

In order to successfully pass a fire test under the new positive pressure requirements, it is necessary for wood door manufacturers to provide doors with listed and approved intumescent seals or gasketing. The WDMA (Wood Door Manufacturers Association) describes positive pressure openings in two categories, Category A and Category B.

Category "A"

Category "A" doors have sealing systems built into the door edges and therefore do not require any additional edge sealing systems between the door and frame. The sealing systems can either be visible or concealed within the edge of the door.

All Positive Pressure Architectural Concepts Fire Doors are manufactured as Category "A" with concealed sealing systems.

Category "B"

Category "B" doors do not have sealing systems built into the door edges. These doors do require additional listed and approved edge sealing systems between the door and frame. These sealing systems are generally surface applied to the door and/or frame. Category "G" describes edge sealing systems which meet this listing requirement. In some cases, Category "G" sealing systems might be required on the meeting stiles of pairs of Category "A" doors.

Smoke Seal Labels

In addition to standard fire ratings (A/3 hour, B/90 or 60 minute, C/45 minute and 20 minute), some positive pressure doors may also be required to carry a smoke seal ("S") label. In these cases, the doors and frames will bear two labels. One indicating the fire rating (fire label) in minutes and the other indicating the opening is smoke rated (smoke label). Category "H" describes sealing systems for doors and frames to meet this listing requirement.

Consult NFPA 80 to review requirements for the installation of fire doors and windows.

Please note: it is the responsibility of the door distributor to inform the manufacturers of what the code requirements are for the fire doors and frames on a given project.

