



## Building Construction: Part 6: Required Fire Resistance

No. FP-2009-50 December 15, 2009

**Learning Objective:** The student shall be able to identify the building code relationship between construction types and required fire resistance rating.

The locally adopted building code establishes fire resistance ratings for various building elements based on the size, height, and intended use of a building. The requirements for fire resistance come from a table similar to the one below.

A building must meet all of the criteria described in the table to achieve one of the five types of construction. (Note that four of the types have “A” or “B” subgroups.)

For example, to meet the requirements of Type IB construction, a building’s structural frame, bearing walls, and floor assemblies must be a minimum 2 hour rating, and the roof construction must be 1 hour.

If such a building were to have 2 hour rated structural frame, bearing walls, and floor assemblies but non-rated roof construction, it would have to be classified no better than Type IIB. This “lower” rating would limit its size, height and intended use.



This jurisdiction identifies fire resistance ratings on assemblies.

### Generic Fire Resistance Rating Requirements for Building Elements (hours)\*

Building Element	Type I		Type II		Type III		Type IV	Type V	
	A	B	A	B	A	B	HT†	A	B
<b>Structural Frame</b>	3	2	1	0	1	0	HT	1	0
<b>Bearing Walls</b>									
<b>Interior</b>	3	2	1	0	2	2	2	1	0
<b>Exterior</b>	3	2	1	0	1	0	1/HT	1	0
<b>Exterior nonbearing walls and partitions</b>	Refer to the building code for requirements based on fire separation or horizontal separation distances.								
<b>Interior nonbearing walls and partitions</b>	0	0	0	0	0	0	0	0	0
<b>Floor construction</b>	2	2	1	0	1	0	HT	1	0
<b>Roof construction</b>	1 ½	1	1	0	1	0	HT	1	0

\*Important note: Always refer to the exceptions and footnotes in the locally adopted building code.

† Heavy timber.

For additional information, refer to *International Building Code*®, Chapter 6, or NFPA 5000™, *Building Construction and Safety Code*®, Chapter 7.

