Two Hour Fire Doors

Design professionals occasionally request two hour fire rated doors. This often leaves distributors and manufacturers scratching their heads because there aren’t any US code requirements for a two hour door. We believe these requests may be due to a misunderstanding of the International Building Code® (IBC).

The IBC requires a higher fire rating for walls than for doors on the premise that combustible materials will be stored immediately adjacent to walls but not against operable doors. Doors located in stairwells or other enclosures of vertical passage through a building generally require 1 ½ hour door assemblies and 2 hour walls. This can be verified by referencing 2015 IBC® Table 716.5 or SDI-118 Table 1 (below).

Specifying a 1 ½ hour door rather than a 2 hour door is the way to go because it is an infinitely more common product.

<table>
<thead>
<tr>
<th>Opening</th>
<th>Wall Rating</th>
<th>Door and Frame Rating</th>
<th>Description and Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 Hour</td>
<td>3 Hour (180 minutes)</td>
<td>Those openings are in walls that separate buildings or divide a single building into designated fire areas.</td>
</tr>
<tr>
<td></td>
<td>2 Hour</td>
<td>1-1/2 Hour (90 minute)</td>
<td>Openings of this type are used in enclosures of vertical communication or egress through buildings. Examples of those types of openings include stairwells and elevator shafts.</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>1 Hour (50 minute)</td>
<td>Those door and frame assemblies divide occupancies in a building.</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>1/4 Hour (45 minute)</td>
<td>For use where there are openings in corridors or room partitions.</td>
</tr>
<tr>
<td></td>
<td>2 Hour</td>
<td>1-1/2 Hour (90 minute)</td>
<td>This opening is in a wall where there is the potential for severe fire exposure from the exterior of the building.</td>
</tr>
</tbody>
</table>
New AIA Course on Security

The Steel Door Institute offers a number of free online courses that provide AIA or GBCI credit. We just published a new course that educates architects on the increasingly popular topic of building security.

Protect People and Property by Specifying Secure Doors and Frames

Every type of building requires protection against forced entry – and doors & frames are the first line of defense. Learn about finding the “just right” amount of security for your building projects and how to specify the doors and frames.

This course covers:

- Door assembly capabilities that reduce the risk of forced entry
- The standards to specify to ensure a certain level of protection
- The potential life safety risks of security gadgets such as barricades.

Take or view course

View all SDI courses

Request Lunch & Learn

SDI Publishes Two New Videos

Visit SDI’s Videos page for educational videos for architects and contractors on fire rated doors, installing steel frames the right way, fixing doors that won’t close due to hinge bind, and more. The two videos below are the most recent additions.
Fixing Frames that are Twisted or Out of Square
Frames that are set square will perform better and last longer.

Jobsite Storage of Steel Doors & Frames and Field Application of Topcoat
Proper jobsite storage and application of primer and topcoat protects doors and frames from rust.