2.8.7. **The** fire-resistance rating of exterior walls required by **Table 1.3** for a fire separation distance of greater than 3 m shall be rated for exposure to fire from the inside. And for separation distance of less than or equal to 3 m shall be rated for exposure to fire from both inside and outside.

2.8.8. Opening protectives as required by **2.8.4.b.** are not mandated where the building is equipped throughout with an automatic sprinkler system in accordance with chapter 9 and the exterior openings are protected by a water curtain using automatic sprinklers approved for that use.

$$(A_p/a_p) + (A_u/a_u) \leq 1$$

where:

A_p = Actual area of protected openings, or the equivalent area of protected openings

a_p = Allowable area of protected openings.

A_u = Actual area of unprotected openings.

a_u = Allowable area of unprotected openings.

2.8.9. Where both unprotected and protected openings are located in the exterior wall in any storey of a building, the total area of openings shall be determined in accordance with this formula.

2.8.10. Except for Open parking OR buildings which are less than 15 m in height, openings in exterior walls in adjacent storeys shall be separated vertically to protect against fire spread on the exterior of the buildings where the openings are within 1524 mm radius of each other horizontally and the opening in the lower storey is not a protected opening with a fire protection rating of not less than 3/4 hour. Such openings shall be separated vertically at least 915 mm by spandrel girders, exterior walls or other similar assemblies that have a fire-resistance rating of at least 1 hour or by flame barriers that extend horizontally at least 760 mm beyond the exterior wall. Flame barriers shall also have a fire-resistance rating of at least 1 hour.

Did You Know?

Earliest Fire tests to evaluate fire resistance of structures was during 1886 in Germany and 1890 in New York. The American Society for Testing and Materials (ASTM) adopted and improvised these test standards during 1907.

The NFPA adopted a much advanced version of the test method in 1918.