

Chapter 44, Section R4410.4 - HIGH-VELOCITY HURRICANE ZONES-STORM SHUTTERS/EXTERNAL PROTECTIVE DEVICES

SECTION R4410.4 HIGH-VELOCITY HURRICANE ZONES-STORM SHUTTERS/EXTERNAL PROTECTIVE DEVICES

R4410.4.1 General. Unless exterior wall components including but not limited to structural glazing, doors and windows of enclosed buildings have specific Product Approval to preserve the enclosed building envelope against impact loads as set forth in Section R4403, all such components shall be protected by product approved storm shutters.

R4410.4.2 The storm shutters shall be designed and constructed to insure a minimum of 1 inch (25 mm) separation at maximum deflection with components and frames of components they are to protect unless the components and frame are specifically designed to receive the load of storm shutters, and shall be designed to resist the wind pressures as set forth in Section R4403 by methods admitting of rational analysis based on established principles of design. Storm shutter shall also be designed to comply with the impact load requirements included within Section R4403.

R4410.4.3 The storm shutter design calculations and detailed drawings, including attachment to the main structure, shall be prepared by and bear the seal of a qualified Florida-registered delegated engineer, or if qualified to prepare such design, by the engineer or architect of record, which architect or engineer shall be proficient in structural design. The architect or engineer of record shall, in all instances, review and approve documents prepared by the delegated engineer.

R4410.4.4 Storm shutters shall be approved by the product control section and shall bear the name of the company engraved in every section of the system.

R4410.4.5 Deflection shall not exceed the limits set forth in Section R4403.

R4410.4.6 Unless storm shutters are permanently attached to the main structure, all such storm shutters shall, where practicable, be neatly stored at all times in a designated and accessible area within the building.

R4410.4.6.1 Shutters used to protect openings above the first story of any building or structure must be permanently installed and closable from the inside of the building or structure unless such openings are accessible without the use of a ladder or lift, or shutters can be installed from the interior of the building or structure.

Exception: Group R3 detached single-family residences not exceeding two stories.

R4410.4.7 Storm shutters must completely cover an opening in all directions.

R4410.4.7.1 On any side of an opening, the maximum side clearance between the shutter and a wall or inset surface shall be $\frac{1}{4}$ inch (6.4 mm). Any distance in excess of $\frac{1}{4}$ inch (6.4 mm) shall require end closure or shutter overlap, where applicable.

R4410.4.7.2 Shutter overlap shall be a minimum of one and one-half times the side clearance between the shutter and wall.

R4410.4.7.3 End closures shall be designed to resist wind loads specified in Section R4403, based on rational analysis.