StormPro® Tornado Resistant Assemblies UL Classified to ICC500 - 2014









StormPro® Tornado Resistant Assemblies from Ceco Door are designed to withstand debris from tornado-force winds and can help save lives.

The extra heavy duty StormPro® assemblies helps to fortify the opening to withstand extreme wind speeds and flying debris during a tornado. StormPro doors and frame assemblies meet the requirements for fire protection, ICC 500-2014 and FEMA guidelines.

Sustained winds of 130 mph to 250 mph are generally associated with tornados. Building owners in tornado-prone areas must take proper precautions to protect occupants. Damage can be caused by flying debris (referred to as windborne missiles). If wind speeds are high enough, missiles can be propelled at a building with enough force to penetrate windows, walls or the roof. An object such as a 2" x 4" wood stud weighing 15 pounds, when carried by a 250-mph wind, can have a horizontal speed of 100-mph. The resulting impact force will penetrate the most commonly used building materials.

Ceco Door developed StormPro® products to resist missile penetration of buildings designed as shelters to protect occupants from injury. Today, StormPro® assemblies are available in either an in swing or out swing design, and in single or paired door openings.

Applications:

- Community Shelters
- Safe Rooms
- Corporate Campuses
- Schools and Government Facilities

Features:

- UL classified to ICC 500-2014, up to 4'0" x 8'0" singles and 8'0" x 8'0"pairs
- Glazed assemblies available with optional 90 UL certified fire rating
- Flush assemblies are UL Certified for up to and including 3 hour fire ratings
- Single and paired shutter options with three or four sided frames available

ASSA ABLOY StormPro® Assemblies Meet UL Certification for Fire, ICC 500-2014 and FEMA Guidelines

Locking Hardware Series Description	Configuration	Mullion / Astragal	FEMA Designation	Min and Max Size	Max Fire Rating	Standard and Fire Rated Core	Min Door - Frame Gauge	Frame Depth Min - Max	Max Impact Energy Resistance (ft-lbs)	Max Design Pressure
Corbin Russwin FE6600 Series or SARGENT FM7300 Series Multi-point Locks	Single In Swing Out Swing 10"x10" Light Option	N/A	320 & 361	2'8" x 6'8" 4'0" x 8'0"	3 Hr. Flush 90 Min. Glazed	Polystyrene Honeycomb	14 - 14	4 - 14	15 lb 2x4 at 100 mph	+/- 284 psf
Corbin Russwin FE6600 Series or SARGENT FM7300 Series Multi-point Locks with SARGENT 988 Series or Corbin Russwin 988CR Series Surface Bolts	Pair In Swing Out Swing 10"x10" Light Option	Flat Plate Astragal	320 & 361	5'4" x 6'8" 8'0" x 8'0"	3 Hr. Flush 90 Min. Glazed	Polystyrene Honeycomb	14 - 14	4-14	15 lb 2x4 at 100 mph	+/- 284 psf
SARGENT FM8700 Series Surface Vertical Rod	Single Out Swing 10"x10" Light Option	N/A	361	3'0" x 6'8" 4'0" x 8'0"	3 Hr. Flush 90 Min. Glazed	Polystyrene Honeycomb	14 - 14	5-3/4 - 14	15 lb 2x4 at 100 mph	+/- 284 psf
SARGENT FM8700 Series Surface Vertical Rod	Pair Out Swing 10"x10" Light Option	N/A	361	6'0" x 6'8" 8'0" x 8'0"	3 Hr. Flush 90 Min. Glazed	Polystyrene Honeycomb	14 - 14	5-3/4 - 14	15 lb 2x4 at 100 mph	+/- 284 psf
Corbin Russwin FE5400S Series Multi-point Exit	Single Out Swing 10"x10" Light Option	N/A	361	3'0" x 6'8" 4'0" x 8'0"	3 Hr. Flush 90 Min. Glazed	Polystyrene Honeycomb	14 - 14	4 - 14	15 lb 2x4 at 100 mph	+/-284 psf
Corbin Russwin FE5400S Series Multi-point Exit	Pair Out Swing 10"x10" Light Option	Corbin Russwin FE707A/ FE708A	361	6'0" x 6'8" 8'0" x 8'0"	3 Hr. Flush 90 Min. Glazed	Polystyrene Honeycomb	14 - 14	5-1/2 - 14	15 lb 2x4 at 100 mph	+/-284 psf
Corbin Russwin FE6700 Series or SARGENT FM6100 Series Multi-point Locks	Shutter Single In Swing	N/A	361	2'6" x 3'0" 4'0" x 6'8"	3 Hr. Flush	Polystyrene Steel stiffened	14 - 14	4 - 14	15 lb 2x4 at 100 mph	+/- 284 psf
Corbin Russwin FE6700 Series or SARGENT FM6100 Series Multi-point Locks	Shutter Pair In Swing	N/A	361	5'0" x 4'0" 8'0" x 6'8"	N/A	Polystyrene	14 - 14	4 - 14	15 lb 2x4 at 100 mph	+/- 284 psf
3 Medeco Maxum Deadbolts and SARGENT 10 Line Series	Single In Swing 10"x10" Light Option	N/A	320	2'8" x 6'8" 3'0" x 7'0"	N/A	Steel Stiffened	14 - 16	4 - 14	15 lb 2x4 at 100 mph	+/-252 psf

Important Notes and Options*

- Frame head face: 2" standard, optional 4"
- Communicating frame option with multi-point lock
- Anchors: masonry and existing opening
- Material: galvannel or cold rold steel
- $\bullet \ Lock\ hardware: electronic\ trims\ available\ with\ ElectroLynx^{@}\ Connectors\ (Reference\ hardware\ templates\ for\ details)$
- Hinges: McKinney SP 4-1/2" HW steel hinges minimum, Markar steel continuous and wide throw continuous hinges optional
- Undercut: determined by door condition (reference hardware template for details)
- Other hardware options include closers, stop/holder, kick plates, position switches, power transfers, rod guards, and viewers *See Ceco Door Tech Manual for more details.

Test Procedures

• ICC 500 - 2014, Standard for the Design, Construction and Performance of Storm Shelters. National Storm Shelter Association (NSSA)

FEMA Guidelines

- FEMA 361, "Design and Construction Guidance for Community Shelters", Federal Emergency Management Agency, August 2015
- FEMA 320 "Taking Shelter from the Storm" August 2014

Ceco Door 9159 Telecom Drive • Milan, TN 38358 Tel (888) 232-6366 • Fax (888) 232-6462 archhelp@cecodoor.com www.cecodoor.com Corbin Russwin FE6600 and SARGENT FM7300 concealed vertical rods, top and bottom bolts, and mortise lock body cassette must be factory installed in a Ceco StormPro door. All other hardware components are shipped directly from SARGENT or Corbin Russwin and must be installed by a factory trained installer. Important: do not remove any hardware blocking or filler plates in the door or the frame until the mortise lock is ready to be installed.

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