



## ABOUT THE PRODUCT:

The Paladin™ PW14 Series Flush Doors and FP14 Frame have been specifically designed, tested and approved to withstand extreme wind-load and flying missile impact. Unique engineered designs combined with the durability of superior corrosive resistant steel make Steelcraft PW14 Paladin™ Series Flush Doors an excellent solution for added building protection from severe weather.

Specifiable options to meet application, specification and performance requirements include mechanical and electrical hardware preparations for exit hardware. No glass lights are allowed.

The PW14 Paladin™ Door and FP14 Frame System has been designed and tested to address the requirements of FEMA 361/320 guidelines and ANSI ICC500 standards to protect the general public from the extreme effects of tornados. For compliance with the standards, the PW14 Paladin™ Door and FP14 Frame must be supplied as a system.

## INSTALLATION:

1. Installation shall conform to the published Steelcraft installation instructions, ANSI A250.11-2001 (formerly SDI 105) Recommended Erection Instructions for Steel Frames and and HMMA 840.
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The Authority Having Jurisdiction is the final authority in issues related to the installation and use of installed Fire Rated Doors.

## DESIGN CRITERIA and HARDWARE CONFIGURATIONS:

Paladin™ Systems offer a range of hardware applications based on ongoing testing for door, frame and hardware configurations. Applications are limited to the configurations tested. For up to date information, please reference the Steelcraft website at [www.steelcraft.com](http://www.steelcraft.com)

Paladin Systems are designed and tested to withstand windborne debris impact of a 15 lbs missile travelling at 100 mph and a 250 mph design wind speed.

## SYSTEM FEATURES AND BENEFITS:

### DOOR: PW14 Paladin™ Series Flush Door:

1. **Steel Stiffened core construction** with 18 Gage (0.042" ) stiffeners welded to each face sheet.
2. **Full Height, Epoxy Filled Mechanical Interlock Edges** at lock and hinge edges with edge seams welded, filled and ground smooth provide structural support and stability the full height of the door.
3. **Full Height Lock Side Reinforcement Channel** ensures structural stability under extreme pressure conditions.
4. **Universal Hinge Preparations** (patented) allow for easy field conversion from standard weight .134" (3.3mm) hinges to heavy weight .180" (54.7mm) hinges.
5. **14 Gage (0.067") Inverted Top and Bottom Channels** with additional 12 Gage (0.093") flush channel.
6. **Beveled Hinge and Lock Edges** allow for tighter installation tolerances, ensure easier operation and eliminate binding and sticking.
7. **Factory Applied Baked-On Rust Inhibiting Primer** paint in accordance with ANSI A250.10-1998 (R2004).
8. **Standard A-60 Galvannealed Steel** face sheets for superior corrosion resistance on exterior openings

## SPECIFICATION COMPLIANCE:

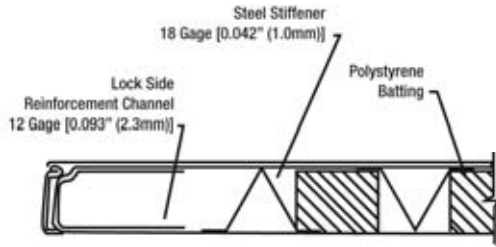
1. Door construction for Steelcraft PW14 Paladin™ Series Flush Doors meets the requirements of ANSI A250.8-2003 (SDI 100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-2003. Locations are in accordance with ANSI/DHI A115.

## FEMA COMPLIANCE LABEL

Factory Label is applied to all PW14 Paladin™ Series Flush Doors and FP14 Frame System.

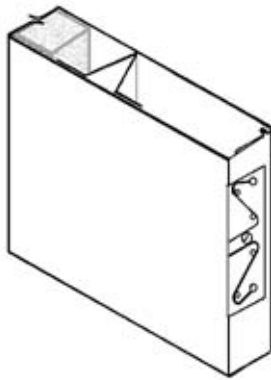
## FIRE RATINGS:

Steelcraft PW14 Paladin™ Series Flush Doors meet the broadest fire rating requirements. They are listed for installations requiring compliance to both neutral pressure testing UL-10B and positive pressure standard UL-10C.

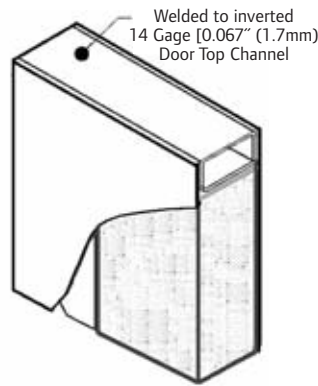


### Standard PW14 Paladin Series Core

- 18 Gage (0.042") Galvannealed Steel Stiffeners welded to each face sheet
- 1 pound per ft<sup>3</sup> density insulation inserted between the steel stiffeners
- 12 gage (0.093") reinforcement channel at the lock edge



Standard 12 Gage [0.093" (2.3mm)] Galvannealed Top Channel



### Premium Edge Construction - STANDARD

- Beveled hinge & lock edges
- Full height mechanical interlock with adhesive
- Seamless welded edge seam standard
- Lock edge with 12 gage (0.093") channel

### Rigid End Channel Construction - STANDARD

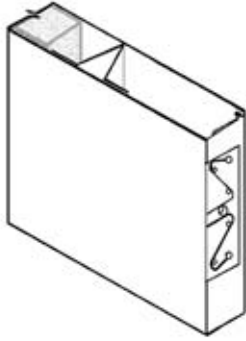
- Top and bottom edges are closed with inverted 14 gage (0.067") welded channels.
- Top channel includes an additional 12 gage [0.093"] flush top channel.

### Door Application and Usage

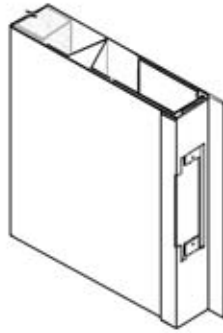
Series	Steel Thickness	Opening	Usage Frequency	
PW14	14 Ga (1.7 mm)	Interior - Galvannealed Steel Exterior - Galvannealed Steel	Maximum Duty	Tornado resistance in accordance with FEMA 361 and ANSI ICC500 standards

### Door Sizes and ANSI A250.8 Conversions

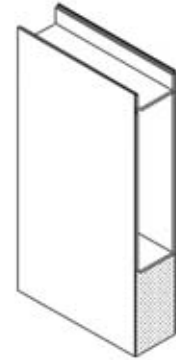
Series	ANSI A250.8 - SDI 100			Edge Construction Options	Maximum Sizes		Recommended Gage of Frame
	Level	Model	Description		Single	Pair	
PW14			Not Applicable	Welded	4'-0" x 9'-0" 1219mm x 3150mm	8'-0" x 9'-0" 2438mm x 3150mm	14 Gage [0.067" (1.7mm)]



**Universal Mortise Hinge Prep**  
 4-1/2" (114mm) x .134" (3.3mm)  
 or x .180" (4.7mm) or Optional  
 5" (127mm) x .146" (3.7mm)  
 or x .190" (4.8mm)



**Inactive Leaf:**  
 ASA Strike Preparation and Astragal

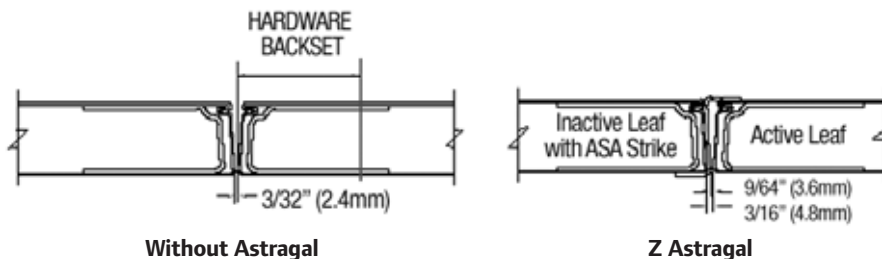


**Standard 14 Gage**  
 [0.067" (1.7mm)]  
 Closer Reinforcement

**Standard: mortised and reinforced for**

- Patented Universal hinge preparations allow for easy field conversion from standard 4-1/2" (114mm) x .134" (3.3mm) standard weight hinges to 4-1/2" (114mm) x .180" (4.7mm) heavy weight hinges. Optional hinge preparation for 5" (127mm) x .146" (3.7mm) standard weight hinges or for 5" (127mm) x .190" (4.8mm) heavy weight hinges is also available.
- Hardware configurations that are compliant with FEMA 361 are acceptable for use with the Paladin System. Mounting tabs for the ASA 4-7/8" (124mm) mortise strike are attached to the door edge for direct mounting; the astragal is cut-out only for the flush mounting of the strike to the door. There are no tabs attached to the astragal.
- Reinforcements for surface Closers are furnished as standard. Reinforcements for Surface Bolts are available.

**Meeting Edge Details for Pairs of PW14 Paladin' Series Doors**



**Code Compliance**

- FEMA 361/320 guidelines and ANSI ICC500 standards
- To protect the general public from extreme effects of tornados
  - A mylar Paladin' label is included as standard

