



15/16" Protectone® Aluminum Fire-Rated Capped System

Protectone® Aluminum Fire-Rated Capped System

The Aluminum Capped System meets the needs of kitchens, food preparation areas, computer rooms, and laboratories.

Features:

- Double web design for lasting durability and strength.
- Bayonet style couplings featured on main runners for easy installation.
- Cross tees are stepped-end, and are offered in 2' (610mm) and 4' (1220mm) lengths.
- Cross tees feature staked-on end tabs for optimal tightness for ease of installation.
- Grid features hot-dipped galvanized steel web construction for corrosion resistance.
- Specific UL fire resistance, time-rated assemblies available.
- Intermediate Duty System available in G60 hot-dipped galvanized for high-humidity environments. Specify G60 after Item #.
- USDA/FSIS accepted.

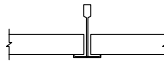
Protectone® Aluminum Fire-Rated Capped System

Main Runner Item #	Length	Height	Face	Metal Thickness	Allowable Load Lbs./Lin.Ft (kg/m) Hanger Spacing		
					ASTM C 635 4' (1220mm)	5' (1525mm)	6' (1830mm)
PAC12-12-15*	12' (3660mm)	1-1/2" (38mm)	15/16" (24mm)	.015" (.38mm)	Intermediate Duty 12.0 (17.9)	6.0 (9.8)	4.0 (6.0)

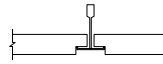
Cross Tee Item #	Length	Height	Face	Metal Thickness	Allowable Load Lbs./Lin.Ft (kg/m) Hanger Spacing		
					ASTM C 635	2' (610mm)	4' (1220mm)
PAC2-12-15*	2' (610mm)	1-1/2" (38mm)	15/16" (24mm)	.015" (.38mm)	-	**40.5 (60.3)	-
PAC4-12-15*	4' (1220mm)	1-1/2" (38mm)	15/16" (24mm)	.015" (.38mm)	-	-	14.0 (20.8)

*Also available with G60 galvanizing. Add suffix "G60" to item number. Example: PAC12-12-15-G60.
**Weight limited by a safety factor of 2.

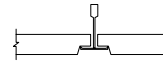
Selected Popular Edge Details



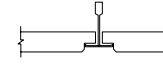
Trim Edge
(Square) 1/8" Grid



Reveal Edge
1/8" Grid



Reveal Edge
(Beveled) 1/8" Grid



Reveal Edge
(Corner Bevel) 1/8" Grid



Long Form Specifications Protectone® Aluminum Capped Fire-Rated System

Section 09510 - Acoustical Ceilings

PART 1 - GENERAL

1.1 Section Includes

Provide metal suspension system for lay-in acoustical panel ceiling.

1.2 Related Sections

- A. Section 09120 - Ceiling Suspension Systems
- B. Section 09250 - Gypsum Board
- C. Section 09545 - Special Ceiling Surfaces
- D. Section 13020 - Integrated Ceilings
- E. Section 13080 - Sound, Vibration, and Seismic Control
- F. Section 15500 - Heating, Ventilating, and Air Conditioning
- G. Section 16500 - Lighting

1.3 References

- A. American Society for Testing and Materials (ASTM)
 - 1. C 635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - 2. C 636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
 - 3. E 580 - Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels in Areas Requiring Moderate Seismic Restraint.
- B. Underwriters Laboratories Inc. (UL) Fire Resistance Directory (latest edition).
- C. Ceiling & Interior Systems Construction Association (CISCA)
 - 1. Ceiling Systems Handbook
 - 2. Guidelines for Seismic Restraint Direct Hung Suspended Ceiling Assemblies

1.4 Submittals

- A. Product data sheets listing dimensions, load carrying capacity and standards compliance.
- B. Samples: 12 inch long samples of main runner and cross tee with couplings.

1.5 Project Conditions

- A. Environmental Requirements:
 - 1. Verify weathertightness of area to receive suspension system prior to installation.
 - 2. Wet trades work to be thoroughly dry and complete prior to suspension system installation.
 - 3. Installation to begin only when temperature and humidity conditions closely approximate interior conditions which will exist when area is complete and occupied.
 - 4. Heating and air conditioning systems to be operating prior to, during, and after installation.
 - 5. High humidity environments are acceptable.

1.6 Maintenance

Furnish additional material equal to ____ percent of ceiling area.

PART 2 - PRODUCTS

2.1 Manufacturers

A. Suspension Systems:

1. Celotex® Brand Protectone Aluminum Capped Fire-Rated (Type PAC) System

2.2 Suspension System Components

A. Main Runners:

1. Manufactured from 0.015 inch thick corrosion-resistant [G60] steel 15/16 inch wide by 1-1/2 inches high by 144 inches long with factory punched cross tee slots, hanger holes, and integral bayonet-style end couplings. Double web [intermediate] [heavy] duty fire-rated ceiling suspension system.
2. Capped with aluminum capping affixed to 15/16 inch flange.
3. Coated with factory-applied [standard] [architect select] color baked-on enamel paint finish.
4. Manufactured with fire expansion reliefs.

B. Cross Tees:

1. Manufactured from 0.015 inch thick corrosion-resistant [G60] steel 15/16 inch wide by 1-1/2 inches high by [24] [48] inches long with factory punched cross tee slots and hanger holes.
2. Capped identical to main runners.
3. Finished identical to main runners.
4. Manufactured with factory attached stainless steel couplings on component ends.
5. Manufactured with fire expansion reliefs.

C. Perimeter Treatment Components:

1. Angle Moldings: Manufactured from 0.020 inch thick corrosion-resistant [G60] steel [15/16 by 15/16] [2 by 2] inch high by 144 inches long with hemmed edges, capped and finished identical to main runners and cross tees.
2. Shadow Line Moldings: Manufactured from 0.020 inch thick corrosion-resistant steel with 3/4 inch by 3/4 inch flanges, [3/8 by 3/8] [3/4 by 3/4] inch recess, 120 inches long and hemmed edge. Finished identical to main runners and cross tees with factory-applied baked-on enamel paint finish.

D. Attachment Devices:

Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.

E. Wire for Hangers and Ties:

Class 1 zinc coating, soft temper, prestretched, with a yield stress load of at least three times design load, but not less than 12 gage.

F. Accessories

PART 3 - EXECUTION

3.1 Examination

Examine area receiving suspension system to identify conditions which will adversely affect installation. Do not begin installation until adverse conditions have been remedied.

3.2 Installation - FIRE-RATED SYSTEM

A. Suspension System Components:

1. Install suspension system in accordance with UL Design Number ____ guidelines.
2. Install suspension system in compliance with ASTM C 636, CISCA recommendations and with the authorities having jurisdiction.
3. Install suspension system requiring seismic restraint in compliance with ASTM E 580, CISCA recommendations and with the authorities having jurisdiction.

B. [Angle] [Shadow Line] Moldings: Installed on vertical surfaces, intersecting suspension components, by appropriate method in accordance with industry-accepted practice.

C. Additional Hanger Wires: Wrapped tightly 3 full turns to structure and component at locations where imposed loads could cause deflection exceeding 1/360 span.

3.3 Adjustments and Cleaning

- A. Remove damaged components, replace with undamaged components. Clean with non-solvent based non-abrasive commercial cleaning solution.

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