

## SECTION 10 26 00

### IMPACT-RESISTANT WALL PROTECTION

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and 1 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. This Section includes the following:

- 1. Corner guards.
- 2. Edge Guards.

- B. Related Sections include the following:

- 1. Section 08 11 13 - Hollow metal doors and frames.
- 2. Section 06 10 00 - Carpentry.
- 3. Section 09 29 00 - Gypsum board construction for steel plate for mounting of wall guards, handrails, accent rails, toilet accessories, toilet fixtures, etc.

##### 1.3 SUBMITTALS

- A. Product Data: Include physical characteristics, such as durability, resistance to fading, and flame resistance, for each impact-resistant wall protection system component indicated.
- B. Shop Drawings: Show locations, extent, and installation details of each impact-resistant wall protection system component. Show methods of attachment to adjoining construction.
- C. Samples for Initial Selection: Manufacturer's color charts consisting of sections of vinyl plastic material showing the full range of colors and textures available for each impact-resistant wall protection system component indicated.
- D. Samples for Verification: For the following products, showing the full range of color and texture variations expected in each impact-resistant wall protection system component. Prepare Samples from the same material to be used for the Work.

1. Wall and Corner Guards: 12-inch long Samples of each type of impact-resistant wall protection system component required. Include examples of joinery, corners, and field splices.
- E. Maintenance Data: For each impact-resistant wall protection system component to include in maintenance manuals specified in Division 1.
  1. Include recommended methods and frequency for maintaining optimum condition of vinyl plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to vinyl plastic finishes and performance.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed installation of impact-resistant wall protection system components similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Manufacturer Qualifications: A firm experienced in manufacturing impact-resistant wall protection system components similar to those required for this Project and with a record of successful in-service performance.
- C. Source Limitations: Obtain each color, grade, finish, and type of impact-resistant wall protection system component from a single source with resources to provide components of consistent quality in appearance and physical properties.
- D. Product Options: Information on Drawings and in Specifications establishes requirements for systems aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, or in-service performance.
- E. Fire-Test-Response Characteristics: Provide impact-resistant wall protection system components with the following surface-burning characteristics, as determined by testing materials identical to those required in this Section per ASTM E 84 by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify impact-resistant wall protection system components with appropriate markings of applicable testing and inspecting agency.
  1. Flame Spread: 25 or less.
  2. Smoke Developed: 25 or less.

- F. Impact Strength: Provide impact-resistant wall protection system components with a minimum impact resistance of 25.4 ft-lbf/in. of width when tested according to ASTM D 256, Test Method A.
- G. Verify with Owner compliance with hospital standard.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store wall surface-protection materials in original undamaged packages and containers inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
  - 1. Maintain room temperature within the storage area at not less than 70 deg F (21 deg C) during the period plastic materials are stored. Keep sheet material out of direct sunlight to avoid surface distortion.
  - 2. Store rigid plastic corner-guard covers in a vertical position, and rigid plastic wall guard and crash rail covers in a horizontal position for a minimum of 72 hours, or until the plastic material attains the minimum room temperature of 70 deg F (21 deg C).

#### 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install wall surface-protection system components until the space is enclosed and weatherproof and ambient temperature within the building is maintained at not less than 70 deg F (21 deg C) for not less than 72 hours before beginning installation. Do not install rigid plastic wall surface-protection systems until that temperature has been attained and is stabilized.

#### 1.7 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Impact-Resistant Wall Protection System Units: Full-size units of maximum length, including vinyl plastic cover and aluminum retainer, equal to 2 percent of each type, color, and texture of each type of unit installed, but not less than two units.
    - a. Include accessory components as required. Replacement materials shall be from the same production run as materials installed. Package replacement materials with protective covering, identified with appropriate labels.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Products: Other manufacturers/products that meet the performance requirements of the finishes specified will be considered, pending Architect's approval.

1. Acrovyn by C/S Group
2. IPC
3. Pawling

## 2.2 MATERIALS

- A. Extruded Rigid Plastic: Textured, chemical- and stain-resistant, high-impact-resistant, PVC or acrylic-modified vinyl plastic; thickness as indicated; with a minimum impact resistance of 25.4 ft-lbf/in. of width when tested according to ASTM D 256, Test Method A.
  1. Color and Texture: Refer to Finish Plan & Schedule.
- B. Aluminum Extrusions: Provide alloy and temper recommended by the manufacturer for the type of use and finish indicated, but with not less than the strength and durability properties specified in ASTM B 221 (ASTM B 221M) for alloy 6063-T5.
- C. Fasteners: Provide aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with aluminum components, hardware, anchors, and other items being fastened. Use theft proof fasteners where exposed to view.
- D. Adhesive: Type recommended by the manufacturer for use with material on the substrate indicated.

## 2.3 CORNER GUARDS and EDGE GUARDS

- A. Corner Guards: Acrovyn SM-20N Surface Mounted / FS-20 Flush Mounted see drawings for details: Resilient Plastic Corner Guards: Surface-mounted, resilient plastic corner guard assembly consisting of a snap-on type plastic cover installed over a continuous aluminum retainer, height as indicated.
  1. Cover: High impact vinyl acrylic, minimum 0.078 inch thick, in dimensions and profiles indicated, Class I fire rated.
    - a. Corner: Square Nose
    - b. Wing Size: 3" x 3".
    - c. Height: Full height
    - d. Endcaps: Refer to partition types for proper width. Provide necessary accessories for a complete assembly.
  2. Retainer: Continuous, one-piece, extruded-aluminum retainer; minimum 0.062 inch thick.

3. Accessories: Provide pre-fabricated, injection-molded caps and aluminum base with concealed splices, cushions, mounting hardware, and other accessories as required.
- B. Edge Guards: Acrovyn FSC-25N Flush mounted: resilient plastic edge guard assembly consisting of a snap-on type plastic cover installed over a continuous aluminum retainer, height as indicated.
1. Cover: High impact vinyl acrylic, minimum 0.078 inch thick, in dimensions and profiles indicated, Class I fire rated.
    - a. Corner: Square Nose
    - b. Wing Size: 2" x 2".
    - c. Height: Full Height
    - d. Endcaps: Refer to partition types for proper width. Provide necessary accessories for a complete assembly.
  2. Retainer: Continuous, one-piece, extruded-aluminum retainer; minimum 0.062 inch thick.
  3. Accessories: Provide pre-fabricated, injection-molded caps and aluminum base with concealed splices, cushions, mounting hardware, and other accessories as required.

## 2.4 FABRICATION

- A. General: Fabricate impact-resistant wall and door protection systems to comply with requirements indicated for design, dimensions, details, finish, and member sizes, including thickness of components.
- B. Preassemble components in the shop to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.
- C. Fabricate components with tight seams and joints with exposed edges rolled. Provide surfaces free of wrinkles, chips, dents, uneven coloration, and other imperfections. Fabricate members and fittings to produce flush, smooth, and rigid hairline joints.
- D. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors for interconnecting members to other construction.
- E. Provide inserts and other anchoring devices for connecting components to concrete or masonry.  
Fabricate anchoring devices to withstand imposed loads. Coordinate anchoring devices with the supporting structure.

## 2.5 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions in which impact-resistant wall protection system components and impact-resistant wall covering materials will be installed.
  - 1. Complete finishing operations, including painting, before installing impact-resistant wall protection system components.
- B. Impact-Resistant Wall Covering Materials: Wall surfaces to receive impact-resistant wall covering materials shall be dry and free from dirt, grease, loose paint, and scale.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. General: Before installation, clean substrate to remove dust, debris, and loose particles.

### 3.3 INSTALLATION

- A. Install impact-resistant wall protection system components level, plumb, and true to line without distortions.
  - 1. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
- B. Install aluminum retainers, mounting brackets, and other accessories according to the manufacturer's written instructions.
  - 1. Where splices occur in horizontal runs of more than 20 feet, splice aluminum retainers and plastic covers at different locations along the run.

- C. See Door Schedule and elevations for applications for door protection
- D. Mounting heights as per hospital standards.

#### 3.4 CLEANING

- A. General: Immediately on completion of installation, clean plastic covers and accessories using a standard ammonia-based household cleaning agent. Clean metal components according to the manufacturer's written instructions.
- B. Remove surplus materials, rubbish, and debris, resulting from installation, on completion of work and leave installation areas in neat, clean condition.

END OF SECTION 10 26 00