

SECTION 10263

CORNER GUARDS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface-mounted corner guards.
- B. Flush mounted corner guards.
- C. Fire-rated flush mounted corner guards.
- D. Mounting hardware, accessories, and trim.

1.2 RELATED SECTIONS

- A. Section 09210 - Gypsum Plaster.
- B. Section 09260 - Gypsum Board Assemblies.
- C. Section 10262 - Wall Guards.
- D. Section 10264 - High Impact Wall Covering.

1.3 REFERENCES

- A. ANSI/CABO A117.1 - American National Standard for Buildings and Facilities - Providing Accessible and usable Buildings and Facilities.
- B. ASTM A 176 - Standard Specification for Stainless and Heat-Resisting Chromium Steel Plate, Sheet, and Strip.
- C. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- D. ASTM D 256 - Standard Test Methods for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
- E. ASTM D 543 - Standard Test Methods for Resistance of Plastics to Chemical Reagents.
- F. ASTM D 635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position.

- G. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- H. ASTM D 648 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load.
- I. ASTM D 785 - Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials.
- J. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
- K. ASTM D 792 - Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
- L. ASTM D 1784 - Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds.
- M. ASTM D 1822 - Standard Test Method for Tensile-Impact Energy to Break Plastics and Electrical Insulating Materials.
- N. ASTM D 2240 - Standard Test Method for Rubber Property-- Durometer Hardness.
- O. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- P. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- Q. CAN/ULC S102.2 - Standard Method of Test for Surface Burning Characteristics of Building Materials.
- R. SAE J-1545 - Recommended Practice; Society of Automotive Engineers.
- S. UL 94 - Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.

- B. Product Data: Manufacturer's complete and current product data for each product required, including complete installation requirements.
- C. Shop Drawings: Show locations of each item and installation details. Provide elevations of non-standard conditions.
- D. Selection Samples: Color charts consisting of actual product pieces, demonstrating full range of available colors, for initial color selection.
- E. Verification Samples: 12 inch long assemblies, including one end cap, in color specified.

1.5 QUALITY ASSURANCE

- A. Provide test reports showing compliance with the performance specified for:
 - 1. Fire-related properties.
 - 2. Accessibility and safety properties.
 - 3. Impact strength.
- B. Fire Resistance: Where fire ratings are specified for flush mounted corner guards, provide assemblies that have been tested and rated in accordance with ASTM E 119.
- C. Corner Guards - Performance Requirements: Pull out capacity complying with State of California requirements, as administered by the Office of Statewide Health Planning and Development (OSHPD), and ANSI A117.1 requirements.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Provide Pro-Tek Corner Guards as manufactured by Pawling Corporation, Standard Products Division; Borden Lane, P.O. Box 200; Wassaic NY 12592; ASD. Tel. (800) 431-3456 (U.S. and Canada) or (914) 373-9300, Fax. (800) 451-2200 (U.S. and Canada) or (914) 373-8712, E-mail address sales@pawling.com
- B. Substitutions: Not permitted.

2.2 MATERIALS

- A. Vinyl: Provide corner guard covers extruded or molded of fire retardant, high impact polyvinyl chloride (PVC) with tributyl tin stabilizer as an antimicrobial agent, and an embossed matte finish.
1. Minimum thickness: 0.080 inch.
 2. Vinyl Properties:
 - a. Vinyl cell classification in accordance with ASTM D 1784: 16354.
 - b. Specific gravity, tested in accordance with ASTM D 792: 1.33, minimum.
 - c. Tensile strength at yield, tested in accordance with ASTM D 638: 6500 psi, minimum.
 - d. Modulus of elasticity, tested in accordance with ASTM D 638: 400,000 psi.
 - e. Tensile impact energy, tested in accordance with ASTM D 1822: 75 ft lb/sq inch.
 - f. Flexural strength, tested in accordance with ASTM D 790: 12,500 psi.
 - g. Modulus of rupture, tested in accordance with ASTM D 790: 400,000 psi.
 - h. Izod impact strength, tested in accordance with ASTM D 256: 23.0 ft lb/inch of notch, minimum, 1/8 inch notch.
 - i. Izod impact strength, tested in accordance with ASTM D 256: 15.0 ft lb/inch of notch, minimum, 1/4 inch notch.
 - j. Hardness, Shore D, tested in accordance with ASTM D 2240: 79, minimum.
 - k. Hardness, Rockwell, tested in accordance with ASTM D 785: 108, minimum.
 - l. Deflection temperature at 264 psi, tested in accordance with ASTM D 648: 162 degrees F (72 degrees C).
 - m. Flammability, tested in accordance with ASTM D 635: Self-extinguishing.
 - n. Flammability, tested in accordance with UL 94: V-O.
 3. Extruded Vinyl Component Properties:
 - a. Surface burning characteristics, tested in accordance with ASTM E 84: Flame spread 5, smoke developed 180; maximum.
 - b. Surface burning characteristics, tested in accordance with CAN/ULC S102.2: Flame spread 10, smoke developed 250-330; maximum.
 - c. Izod impact strength, tested in accordance with ASTM D 256: 25.3 ft lb/inch of notch, average.

- d. Charpy impact strength, tested in accordance with ASTM D 256: 26 ft lb/inch of notch, average.
 - e. Chemical and stain resistance, tested in accordance with ASTM D 543, 7 day immersion in standard reagents: Results available upon request.
 - f. Color match when tested in accordance with SAE J-1545: Accurate to within 1.0 or less Delta E by CIE LAB 10 degree standard observer color difference and equation.
 - g. Combustion toxicity: Registered in accordance with New York State Uniform Fire Prevention and Building Code.
- B. Acrylic Vinyl: Provide specialty surface mounted corner guards of embossed acrylic vinyl.
- C. Aluminum for Corner Guard Retainers: Alloy 6063-T5, in accordance with ASTM B 221 or FS QQ-A-200; anodized finish complying with AAMA 611, Class II minimum.
- D. Stainless Steel: ASTM A 176, Type 430, 16 gage, satin finish.

2.3 SURFACE MOUNTED RIGID VINYL CORNER GUARDS

- A. CG-10: 3-inch wide, 0.100-inch thick rigid vinyl cover over continuous 0.063-inch aluminum retainer.
- 1. Provide TC-10 closure caps for corner guards that do not extend to ceiling.
- B. CG-20: 2-inch wide, 0.085-inch thick rigid vinyl cover over continuous 0.063-inch aluminum retainer.
- 1. Provide TC-20 closure caps for corner guards that do not extend to ceiling.
- C. CG-30: 3-inch wide, 0.093-inch thick, bull-nosed 1-1/4 inch radius, rigid vinyl cover over continuous 0.063-inch aluminum retainer.
- 1. Provide TC-30 closure caps for corner guards that do not extend to ceiling.
- D. CG-135: 3-inch wide, 0.093-inch thick, 135 degree corner, rigid vinyl cover over continuous 0.063-inch aluminum retainer.
- 1. Provide TC-135 closure caps for corner guards that do not extend to ceiling.

- E. CG-11: Pair of CG-20 corner guards with variable width vinyl filler strip for end wall protection.
 - 1. Filler strip color: Match corner guards.
 - 2. Filler strip color: Contrasting color: _____.
 - 3. Provide pair of TC-20 closure caps for corner guards that do not extend to ceiling.

2.4 SPECIALTY SURFACE MOUNTED CORNER GUARDS

- A. CG-34: 3/4-inch wide, 0.080-inch thick, embossed acrylic vinyl for installation by adhesive, double faced tape, or screws.
- B. CG-12: 1-1/2-inch wide, 0.080-inch thick, embossed acrylic vinyl for installation by adhesive, double faced tape, or screws.
- C. CG-13: 3-inch wide, 0.093-inch thick, embossed acrylic vinyl for installation by adhesive, double faced tape, or screws.
- D. CG-14: 4-inch wide, 0.093-inch thick, embossed acrylic vinyl for installation by adhesive, double faced tape, or screws.
- E. CG-16: 3/4 inch wide, 0.040-inch thick, clear "Lexan" for brad installation.
- F. CG-17: 1-1/8 inch wide, 3/32-inch thick, clear "Lexan" for screw installation.
- G. CG-18: 2-1/2-inch wide, 1/8-inch thick, clear "Lexan" for screw installation.
- H. CG-24: 2-inch wide, 1/16-inch thick, clear "Lexan" for screw installation.
- I. CG-25: 3-inch wide, 1/8-inch thick, clear "Lexan" for screw installation.
- J. CG-50: 3-1/2-inch wide, 16 gage stainless steel, 90 degree corner with 1/8-inch radius, for adhesive installation.
- K. CG-55: 3-1/2-inch wide, 16 gage stainless steel, 90 degree corner with 3/4-inch radius, for adhesive installation.

- L. CG-60: 3-1/2-inch wide, 16 gage stainless steel, 135 degree corner with 1/8-inch radius, for adhesive installation.
- M. CG-55: 3-1/2-inch wide, 16 gage stainless steel, 135 degree corner with 3/4-inch radius, for adhesive installation.
- N. CG-400: 1-inch wide, mill finish aluminum alloy, 90 degree corner, for adhesive application.
- O. CG-401: 2-inch wide, mill finish aluminum alloy, 90 degree corner, for adhesive application.
- P. CG-402: 3-inch wide, mill finish aluminum alloy, 90 degree corner, for adhesive application.
- Q. CG-403: 1-inch wide, mill finish aluminum alloy, 135 degree corner, for adhesive application.
- R. CG-404: 2-inch wide, mill finish aluminum alloy, 135 degree corner, for adhesive application.
- S. CG-405: 3-inch wide, mill finish aluminum alloy, 135 degree corner, for adhesive application.

2.5 FLUSH MOUNTED RIGID VINYL CORNER GUARDS

- A. CG-7: 3-inch wide, 0.100-inch thick, 90 degree rigid vinyl cover over continuous 0.070-inch aluminum retainer.
 - 1. Provide CBI-7 aluminum extrusion insert for cove base support.
 - 2. Provide 1 hour fire rating.
 - 3. Provide 2 hour fire rating.
- B. CG-72: 2-inch wide, 0.085-inch thick, 90 degree rigid vinyl cover over continuous 0.070-inch aluminum retainer.
 - 1. Provide CBI-72 aluminum extrusion insert for cove base support.
 - 2. Provide 1 hour fire rating.
 - 3. Provide 2 hour fire rating.
- C. CG-32: 3-inch wide, 0.100-inch thick, 1-1/4-inch radiused 90 degree rigid vinyl cover over continuous 0.070-inch aluminum retainer.
 - 1. Provide CBI-32 aluminum extrusion insert for cove base support.
 - 2. Provide 1 hour fire rating.

3. Provide 2 hour fire rating.
- D. CG-888: 0.093-inch thick, double 90 degree rigid vinyl cover with rubber bumper strips, for end wall protection; continuous 0.080-inch aluminum retainer.
1. Width: As indicated on drawings.
 2. Width: _____.
 3. Provide CBI-888 aluminum extrusion insert for cove base support.
 4. Provide 1 hour fire rating.
 5. Provide 2 hour fire rating.
- E. CG-8: Pair of 0.093-inch thick, 90 degree rigid vinyl cover corner guards with filler strip of wall covering material, for end wall protection; continuous 0.076-inch aluminum retainer.
1. Filler strip width: As indicated on drawings.
 2. Filler strip width: _____.
 3. Provide pair of CBI-72 aluminum extrusion inserts for cove base support.
 4. Provide 1 hour fire rating.
 5. Provide 2 hour fire rating.
- F. CG-75: 3-inch wide, 0.093-inch thick, 135 degree rigid vinyl cover over continuous 0.076-inch aluminum retainer.
1. Provide CBI-75 aluminum extrusion insert for cove base support.
 2. Provide 1 hour fire rating.
 3. Provide 2 hour fire rating.

2.6 FINISHES

- A. Colors: Provide corner guards in colors as follows:
1. As selected from manufacturer's standard palette of colors.
 2. As scheduled on the drawings.
 3. _____.

2.7 ACCESSORIES

- A. Provide appropriate fasteners and accessories as required to properly complete corner guard installation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that walls are in proper condition to receive installation of corner guards.
 - 1. Flush mounted corner guards must be coordinated with installation of gypsum wallboard.
 - 2. Surface mounted corner guards must be installed after wall finishes have been completed.

3.2 INSTALLATION

- A. Install corner guards in full compliance with manufacturer's installation instructions.
- B. Surface Mounted Rigid Vinyl Corner Guards:
 - 1. Fasten retainers to corners, resting directly on floor.
 - 2. Mount caps so they overlap retainers.
 - 3. Snap covers into place.
- C. Surface mounted Specialty Corner Guards: Fasten directly to finished wall surfaces using fasteners or adhesive as recommended by manufacturer.
- D. Flush Mounted Rigid Vinyl Corner Guards:
 - 1. Fasten retainers to studs before final layer of gypsum wallboard is installed.
 - 2. Install aluminum inserts for cove base.
 - 3. Snap covers into place.

3.3 ADJUSTING AND CLEANING

- A. Verify that corner guards are plumb and rigidly secured to substrate; make any adjustments required.
- B. Clean corner guards and immediate areas of installation, using materials and methods recommended by manufacturer. Remove from project site packaging and debris caused by installation.

END OF SECTION