

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Impact-resistant wall coverings.
 - 2. Corner guards.

1.2 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, impact strength, dimensions of individual components and profiles, and finishes for each impact-resistant wall protection unit.
- B. Shop Drawings: For each impact-resistant wall protection unit showing locations and extent. Include sections, details, and attachments to other work.
- C. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below
- D. Impact-Resistant Wall Covering: 6 by 6 inches (150 by 150 mm) square.
- E. Qualification Data: For qualified Installer.
- F. Material Certificates: For each impact-resistant plastic material, from manufacturer.
- G. Warranty: Sample of special warranty.
- H. Maintenance Data: For each impact-resistant wall protection unit to include in maintenance manuals.
 - 1. Include recommended methods and frequency of maintenance for maintaining optimum condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to plastic finishes and performance.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain impact-resistant wall protection units from single source from single manufacturer.
- C. Surface-Burning Characteristics: Provide impact-resistant, plastic wall protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another qualified testing agency.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store impact-resistant wall protection units in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
 - 1. Maintain room temperature within storage area at not less than 70 deg F (21 deg C) during the period plastic materials are stored.
 - 2. Keep plastic sheet material out of direct sunlight.
 - 3. Store plastic wall protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F (21 deg C).

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install impact-resistant wall protection units until building is enclosed and weatherproof, wet work is complete and dry, and HVAC system is operating and maintaining temperature at 70 deg F (21 deg C) for not less than 72 hours before beginning installation and for the remainder of the construction period.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of impact-resistant wall protection units that fail in materials or workmanship within specified warranty period.
- B. Failures include, but are not limited to, the following:
 - 1. Structural failures.
 - 2. Deterioration of plastic and other materials beyond normal use.
- C. Warranty Period: Five years from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Engineered PETG: ASTM D 1784, Class 1, textured, chemical- and stain-resistant, high-impact-resistant PVC-free plastic with integral color throughout; sheet material, thickness as indicated.
 - 1. Impact Resistance: Tested according to ASTM D F476.
 - 2. Chemical and Stain Resistance: Tested according to ASTM D 543
 - 3. Fire performance characteristics: Tested according to ASTM E84, Class1.
 - 4. Flame-Spread Index: 25 or less.
 - 5. Smoke-Developed Index: 450 or less.
- B. Polycarbonate Plastic Sheet: ASTM D 6098, S-PC01, Class 1 or 2, abrasion resistant; with a minimum impact-resistance rating of 15 ft-lbf/in. (800 J/m) of notch when tested according to ASTM D 256, Test Method A.
- C. Aluminum Extrusions: Alloy and temper recommended by manufacturer for type of use and finish indicated, but with not less than strength and durability properties specified in ASTM B 221 (ASTM B 221M) for Alloy 6063-T5.

- D. Stainless-Steel Sheet: ASTM A 240/A 240M.
- E. Brass: ASTM B 249/B 249M for extruded shapes and ASTM B 36/B 36 M for sheet.
- F. Fasteners: Aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with items being fastened. Use security-type fasteners where exposed to view.
- G. Adhesive: As recommended by impact-resistant plastic wall protection manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.2 IMPACT-RESISTANT WALL COVERINGS

- A. Impact-Resistant Sheet Wall Covering: Fabricated from plastic sheet wall-covering material.
 - 1. Basis-of-Design Product: C/S Acrovyn 4000.
 - 2. IPC Door and Wall Protection Systems: Division of InPro Corporation
 - 3. Koroseal Wall Protection Systems: Korogard.
 - 4. Or Approved Equal.
- B. Sheet Thickness: 0.040 inch (1.0 mm).
- C. Color and Texture: As indicated in Drawings.
- D. Height: As indicated in Drawings.
- E. Mounting: Adhesive.

2.3 CORNER GUARDS

- A. Surface-Mounted, Acrylic Corner Guards: Fabricated from one-piece with formed edges; with 90- or 135-degree turn to match wall condition. By same manufacturer as Wall Coverings. Basis-of-Design Product: C/S Acrovyn Model SM-20N 90° surface mounted corner guard with 3" (76mm) legs, ¼" radius cover and recycled PETG retainer.
 - 1. IPC Door and Wall Protection Systems; Division of InPro Corporation.
 - 2. Koroseal Wall Protection Systems
 - 3. Or Approved Equal.
- B. Color and Texture: As indicated in Drawings.

2.4 FABRICATION

- A. Fabricate impact-resistant wall protection units to comply with requirements indicated for design, dimensions, and member sizes, including thicknesses of components.
- B. Assemble components in factory 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.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Examine walls to which impact-resistant wall protection will be attached for blocking, grounds, and other solid backing that have been installed in the locations required for secure attachment of support fasteners.
 - 1. For impact-resistant wall protection units attached with adhesive, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Complete finishing operations, including painting, before installing impact-resistant wall protection system components.
- B. Before installation, clean substrate to remove dust, debris, and loose particles.

3.3 INSTALLATION

- A. General: Install impact-resistant wall protection units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
 - 1. Install impact-resistant wall protection units in locations and at mounting heights indicated on Drawings.
 - 2. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
 - 3. Impact-Resistant Wall Covering: Butt panels leaving 1/8" maximum joint. Install security sealant at joints and top of wainscot.

3.4 CLEANING

- A. Immediately after completion of installation, clean plastic covers and accessories using a standard, ammonia-based, household cleaning agent.
- B. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION