

SECTION 10 26 23.13

IMPACT RESISTANT WALL PROTECTION

PART 1 – GENERAL

1.1 PURPOSE

- A. This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

1.2 LESSONS LEARNED AND DESIGN CONSIDERATIONS

- A. X

1.3 SECTION INCLUDES

- A. Impact resistant wall covering and accessories.

1.4 RELATED REQUIREMENTS

- A. Division 01 – Administrative Requirements: Submittal procedures, project meetings, progress schedules and documentation, reports, coordination.
- B. Division 01 – Sustainable Design Reporting.
- C. Division 01 – Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.
- D. Division 01 – Volatile Organic Compound (VOC) Content Restrictions.
- E. Division 01 – Construction Waste Management and Disposal

1.5 SUBMITTALS

- A. See Division 01 for submittal procedures.
- B. Product Data: Provide product data for each product specified in this Section.
- C. Shop Drawings: Indicate locations, extent and installation details of wall covering products.
- D. Samples: Submit two wall covering samples, 12 by 12 inch in size, illustrating color, texture and thickness.
- E. Certificate: Certify that products of this section meet or exceed specified requirements.
- F. Test Reports: Indicate test reports from a qualified independent testing laboratory showing compliance of each component with requirements indicated.
- G. Maintenance Data: Maintenance data for wall protection system components.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with minimum three years of documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the project site in unopened original factory packaging clearly labeled to show manufacturer.
- B. Store materials in original, undamaged packaging in a clean, dry place out of direct sunlight and exposure to the elements. A minimum room temperature of 40°F and a maximum of 100°F should be maintained.
- C. Store wall covering and trim flat.

1.8 FIELD CONDITIONS

- A. Store and acclimate wall covering and trim in an environment of 65-75°F for at least 24 hours prior to beginning the installation.
- B. Installation areas must be enclosed and weatherproofed before installation commences.

PART 2 – PRODUCTS

2.1 MANUFACTURED UNITS

- A. Plastic: Construction Specialties, Acrovyn 4000 Wall Protection.
 - 1. Description:
 - a. Engineered PETG: Rigid sheet, high impact Acrovyn 4000.
 - b. Thickness: Nominal .040" thickness.
 - c. Pattern: As selected by Architect.
 - d. Color: As selected by Architect.
 - 2. Fire Rating: UL, ASTM E84 for Class 1 characteristics listed below:
 - a. Flame spread: 25 or less.
 - b. Smoke developed: 450 or less.
 - 3. Impact Strength: Tested in accordance with the applicable provisions of ASTM F476.
 - 4. Chemical and Stain Resistance: In accordance with ASTM D543.
- B. Aluminum:
 - 1. Description:
 - a. Thickness: 17 gage, 0.045 inch.
 - b. Height: 48 inch.
 - c. Pattern: Diamond plate.
- C. Substitutions: See Division 01.

2.2 ACCESSORIES

- A. Adhesive: Water based and non-hazardous, as recommended by manufacturer for the installation application.
- B. Sealant: Manufacturers standard in color to match wall covering.
- C. Trim: Edge trims as needed for joints/transitions, finished edges and inside corners.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Surface Preparation:
 - 1. Clean substrate prior to beginning application of wall covering.
 - 2. If required by manufacturer, apply sealer to wall surface

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Maintain temperature at the time of installation between 65-75°F and maintain for at least 48 hours after the installation
- C. Maintain relative humidity below 80%.
- D. Do not expose wall covering to direct sunlight during or after installation.

3.3 CLEANING

- A. Clean wall covering and accessories in accordance with manufacturer's recommended cleaning method.
- B. See Division 01 – Construction Waste Management and Disposal, for additional requirements.

3.4 PROTECTION

- A. Protect installed wall covering from subsequent construction operations.

PART 4 – APPENDIX

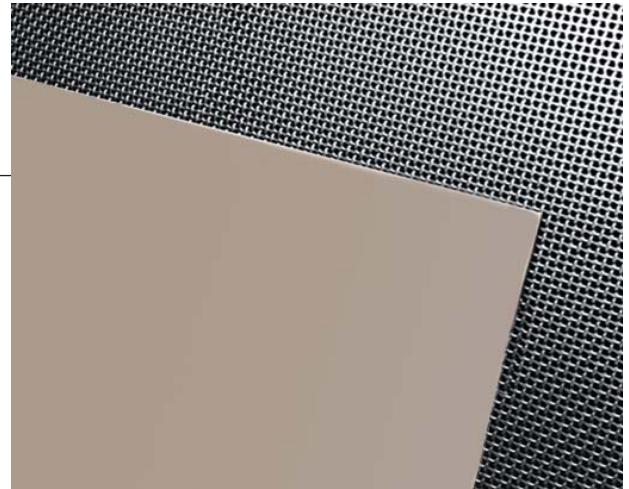
4.1 PRODUCT DATA / CUT SHEETS

- A. Acrovyn, 4000 Wall Protection
- B. Aluminum Diamond Plate sheet and edge trims.

Acrovyn .040N Sheet

Product Data

.040" thick Acrovyn high-impact wall covering can be installed over a variety of substrates at full or partial height.



Solid Colors | Chameleon Patterns

Technical Data:

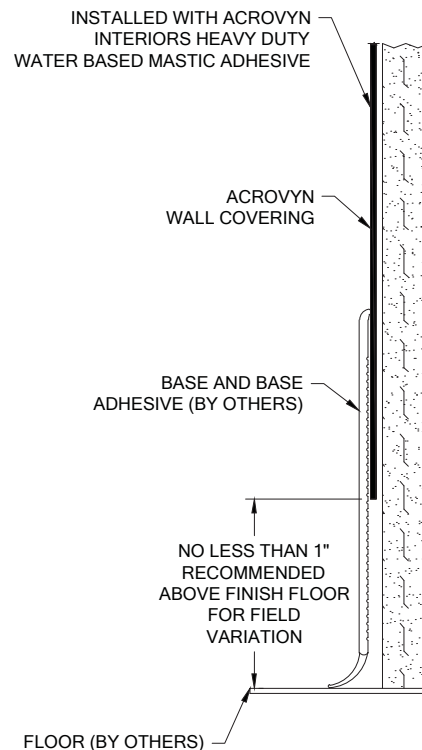
- .040" (1.02mm) thick Acrovyn sheet
- Standard sheet sizes for solid colors are 4' x 8' (1.2m x 2.4m) and 4' x 10' (1.2m x 3.0m)
- Standard sheet size for Chameleon™ patterns is 4' x 10' (1.2m x 3.0m); pattern direction runs parallel to 10' (3.0m) side of sheet
- Adhesive mount

Features:

- UL Class A/1 fire rated and labeled
- Suede texture Acrovyn
- Engineered PETG free of PVC and PBTs
- CA 01350 protocol for low VOC
- 5 year product warranty
- Chameleon limited lifetime warranty

Options:

- Maximum 12' (3.7m) length; for larger sizes please contact factory
- Radius, custom forming and cut to size available
- Color-matched or clear caulk
- Acrovyn wainscot, vertical, inside and outside trim supplied in 10' (3.1m) lengths (solid colors only)
- Aluminum wainscot, vertical, inside and outside trim supplied in 12' (3.7mm) lengths - 135 degree available
- Specified factory-thermoformed inside and outside corners (adhesive mount) - models TFC and TFCH
- Additional textures available: sizes 43" x 90" (1.1m x 2.3m) and 43" x 114" (1.1m x 2.9m)
- Primer or no primer



Similar Models:

- Acrovyn .060N and .075" sheet
- Acrovyn by Design® sheet
- Saratoga® Wall System
- Stainless Steel sheet



SUGGESTED SPECIFICATIONS
SECTION 10 26 00
CS Acrovyn 4000 .040N Sheet

Part 1 - General

1.01 Summary

A. This section includes the following types of wall protection systems:

1. Wall Covering

B. Related sections: The following sections contain requirements related to this section:

1. Handrails, Corner Guards, Bumper Guards, Crash Rails, Accent Rails, Wall Panels, Door Protection; refer to section 10 26 00 "Wall and Door Protection"

1.02 References

A. National codes (IBC, UBC, SBCCI, BOCA and Life Safety)

B. American Society for Testing and Materials (ASTM)

C. Underwriters Laboratories (UL)

D. California 01350 specification

1.03 Submittals

General: Submit the following in accordance with conditions of contract and Division 1 specification section 01 33 00 "Submittal Procedures":

A. Product data and detailed specifications for each system component and installation accessory required, including installation methods for each type of substrate.

B. Shop drawings showing locations, extent and installation details of wall covering products.

C. Samples for verification purposes: Submit the following samples, as proposed for this work, for verification of color, texture, pattern and thickness:

1. Sample of each product specified.

D. Product test reports from a qualified independent testing laboratory showing compliance of each component with requirements indicated.

E. Maintenance data for wall protection system components for inclusion in the operating and maintenance manuals specified in Division 1.

1.04 Quality Assurance

A. Installer qualifications: Engage an installer who has no less than 3 years experience in installation of systems similar in complexity to those required for this project.

B. Manufacturer's qualifications: Not less than 5 years experience in the production of specified products and a record of successful in-service performance.

C. Code compliance: Assemblies should conform to all applicable codes including IBC, UBC, SBCCI, BOCA, Life Safety and CA 01350.

D. Fire performance characteristics: Provide engineered PETG wall protection system components with UL label indicating that they are identical to those tested in accordance with ASTM E84 for Class A/1 characteristics listed below:

1. Flame spread: 25 or less

2. Smoke developed: 450 or less

E. Impact strength: Provide wall protection components that have been tested in accordance with the applicable provisions of ASTM F476.

F. Chemical and stain resistance: Provide wall protection system components with chemical and stain resistance in accordance with ASTM D543.

G. Color match: Provide wall protection components that are color matched in accordance with the following:

1. Delta Ecmc of no greater than 1.0 using CIE Lab color space. (Specifier note: Construction Specialties' colors are matched under cool white fluorescent lighting and computer controlled within manufacturing tolerances. Color may vary if alternate lighting sources are present.)

H. Single source responsibility: Provide all components of the wall protection system manufactured by the same company to ensure compatibility of color, texture and physical properties.

1.05 Delivery, Storage and Handling

A. Deliver materials to the project site in unopened original factory packaging clearly labeled to show manufacturer.

B. Store materials in undamaged packaging in a clean, dry place out of direct sunlight and exposure to the elements. A minimum room temperature of 40°F (4°C) and a maximum of 100°F (38°C) should be maintained.

C. Materials must be stored flat.

1.06 Project Conditions

A. Materials must be acclimated in an environment of 65-75°F (18-24°C) for at least 24 hours prior to beginning the installation.

B. Installation areas must be enclosed and weatherproofed before installation commences.

Part 2 - Products

2.01 Manufacturers

A. Interior surface protection products specified herein and included on the submittal drawings shall be manufactured by Construction Specialties, Inc.

2.02 Materials

A. Engineered PETG: Rigid sheet should be high-impact Acrovyn 4000 with standard Suede texture, nominal .040" (1.02mm) thickness. Chemical and stain resistance should be per ASTM D543 standards as established by the manufacturer. Colors to be indicated in the finish schedule from one of manufacturer's available colors and patterns.

B. Aluminum: Optional aluminum trims to be alloy 6063 T5 with clear anodized finish; minimum strength and durability properties as specified in ASTM B221.

2.03 Wall Covering

A. Engineered PETG rigid sheet to be CS Acrovyn: Nominal .040" (1.02mm) thick rigid sheet supplied in 4' x 8' or 10' (1.2m x 2.4m or 3.0m) sheet sizes in standard Suede texture. Optional textures shall be 43" x 90" or 114" (1.1m x 2.3m or 2.9m). Select from one of Acrovyn solid colors or Chameleon™ simulated patterns. Standard Chameleon sheet size is 4' x 10' (1.2m x 3.0m); pattern direction runs parallel to 10' (3.0m) side of sheet. Specify color matched caulk, clear caulk, Acrovyn trims or aluminum trims as needed for joints/transitions.

[Specifier note: refer to the Acrovyn Cradle to Cradle Product Summary at www.acrovyn.com/c2c to determine which colors and patterns are Cradle to Cradle Certified™ Gold or Silver (exceptions: adhesive, primer and caulk). Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.]

2.04 Fabrication

A. General: Fabricate wall covering to comply with requirements indicated for design, dimensions, detail, finish and sizes.

2.05 Finishes

A. General: Comply with NAAMM "Metal Finishes Manual" for recommendations relative to applications and designations of finishes.

2.06 Accessories

A. Adhesive: Acrovyn wall covering shall be furnished as a complete packaged system, including appropriate standard adhesive.

B. Primer, caulk and trims available for purchase.

Part 3 - Execution

3.01 Examination

A. Verification of conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

1. Do not proceed until unsatisfactory conditions have been corrected.

3.02 Preparation

A. Surface preparation: Prior to installation, clean substrate to remove dirt, debris and loose particles. Perform additional preparation procedures as required by manufacturer's instructions.

B. Protection: Take all necessary steps to prevent damage to material during installation as required in manufacturer's installation instructions.

3.03 Installation

A. Install the work of this section in strict accordance with the manufacturer's recommendations using approved adhesive.

B. Temperature at the time of installation must be between 65-75°F (18-24°C) and be maintained for at least 48 hours after the installation to allow for proper adhesive set-up.

C. Relative humidity shall not exceed 80%.

D. Do not expose wall covering to direct sunlight during or after installation. This will cause the surface temperature to rise, which in turn will cause bubbles and delamination.

3.04 Cleaning

A. General: Immediately upon completion of installation, clean material in accordance with manufacturer's recommended cleaning method.

B. Remove surplus materials, rubbish and debris resulting from installation as work progresses and upon completion of work.

3.05 Protection

A. Protect installed materials to prevent damage by other trades. Use materials that may be easily removed without leaving residue or permanent stains

Acrovyn® High-Impact Wall Panels

An unbeatable combination of looks and performance

Acrovyn® High-Impact Wall Panels provide **the ultimate in wall protection**. Highly versatile, Acrovyn panels can be installed over any substrate, including ceramic tile or block. Acrovyn Beveled and Square-Edge Panels are 3/8" thick. Acrovyn Wall Panels can be manufactured in any size or shape. Acrovyn and metal trims are available.



64 Designer Colors



13 Exciting Textures

Finishes:	Colors: 64	Textures: 13
Sizes:	Beveled Edge: up to 43" x 114"	Square Edge: up to 46" x 118"
Mounting:	Beveled Edge: Demountable Z-Clip or Permanent Adhesive Square Edge: Permanent Adhesive	

Wall panel cores contain no added urea formaldehyde.

Acrovyn Beveled Edge Panels (front) offer maximum protection and many aesthetic options. Square Edge Panels provide the same protection at a lower cost.



Acrovyn High-Impact Wall Panels
102 Desert Sand, 479 Cappuccino and 326 Rustic Red
Kaiser Interstate Oncology Center

Acrovyn® Wall Panels *selection guide*



PBT/PVC-free Acrovyn 4000 material will be supplied as standard.

Description	Durability Rating	Fire Rating	Colors	Textures	Patterns	Sizes*	Mounting Options	Cost Index**	Page
Acrovyn Solid Colored Beveled Edge Panels Factory-finished edges allow for maximum design flexibility. Panels can be fabricated to field verified dimensions or edges can be field cut (requiring caulk or trim moldings).	Moderate to High Impact Strength	Tested in accordance with ASTM E84 Class B/2 fire characteristics	64	13	N/A	43" x 114" (1.1m x 2.9m)	Demountable Z-Clip or Permanent Adhesive (see pg 60)	100	52, 56
Acrovyn Solid Colored Square Edge Panels Unfinished factory and field cut edges must be covered by caulk or trim moldings.	Moderate to High Impact Strength	Tested in accordance with ASTM E84 Class B/2 fire characteristics	64	13	N/A	46" x 118" (1.2m x 3.0m)	Permanent Adhesive only (see pg 60)	95	52, 56
Acrovyn Chameleon Simulated Wood Panels Factory-finished edges allow for maximum design flexibility. Panels can be fabricated to field verified dimensions or edges can be field cut (requiring caulk or trim moldings). Also available with unfinished square edges.	Moderate to High Impact Strength	Tested in accordance with ASTM E84 Class B/2 fire characteristics	N/A	13	16 woodgrain patterns	43" x 114" (1.1m x 2.9m)	Demountable Z-Clip or Permanent Adhesive (see pg 60)	110	54, 56
Acrovyn Chameleon Simulated Metal Panels Factory-finished edges allow for maximum design flexibility. Panels can be fabricated to field verified dimensions or edges can be field cut (requiring caulk or trim moldings). Also available with unfinished square edges.	Moderate to High Impact Strength	Tested in accordance with ASTM E84 Class B/2 fire characteristics	N/A	13	2 metal patterns	43" x 114" (1.1m x 2.9m)	Demountable Z-Clip or Permanent Adhesive (see pg 60)	110	54, 56
Renaissance Real Wood Panels Factory-finished edges allow for maximum design flexibility. Panels are fabricated to field verified dimensions.	Low to Moderate Impact Strength	Panel core tested in accordance with ASTM E84 Class A/1 fire characteristics	5 stains	N/A	6 wood species	Up to 48" x 120" (1.2m x 3.0m)	Demountable Z-Clip or Permanent Adhesive (see pg 60)	210	58, 56

* Some Acrovyn textures may limit overall sheet and panel sizes.

** By assigning our most popular wall panel a designation of 100, you can estimate how much more or less an alternate panel will cost.

Acrovyn® Wall Coverings *selection guide* .040" and .060" Rigid Acrovyn Sheet is available in PBT-free Acrovyn 4000.

Description	Durability Rating	Fire Rating	Colors	Textures	Patterns	Sizes*	Mounting Options	Cost Index**	Page
Acrovyn Saratoga Wall System .040" sheet combined with oversized trims to create a variety of panelized-looks for wainscot or full height applications.	Moderate Impact Strength	Tested in accordance with ASTM E84 Class B/2 fire characteristics	64	10	18 wood and metal patterns	48" x 120" (1.2m x 3.0m) sheets and 96" (2.4m) trims	Permanent Adhesive only (see pg. 68)	325-410	62-65
.040" Rigid Acrovyn 4000 Sheet Sheet can be installed with trims, caulk or butt joint seams that allow for proper expansion tolerances.	Moderate Impact Strength	 Class A/1	64	13	18 wood and metal patterns	48" x 120" (1.2m x 3.0m)	Permanent Adhesive only (see pg. 69)	100	66
.060" Rigid Acrovyn 4000 Sheet Sheet can be installed with trims, caulk or butt joint seams that allow for proper expansion tolerances.	Moderate to High Impact Strength	 Class A/1	64	2	N/A	48" x 120" (1.2m x 3.0m)	Permanent Adhesive only (see pg. 69)	160	66

† For complete fire rating information refer to the Acrovyn tech manual.

* Some Acrovyn textures may limit overall sheet and panel sizes.

** By assigning our most popular wall covering a designation of 100, you can estimate how much more or less an alternate sheet will cost.

Aluminum Diamond Plate Panel



Aluminum Diamond Plate Panel
Edge Trims



Joiner



**Inside
Corner**



J Cap