

Health Product Declaration™ (HPD)

Acrovyn® 4000 *Cradle to Cradle Certified™* Rigid Sheet and Wall Guards

C/S is committed to bringing **high quality, sustainably manufactured, specialty architectural products** to the market. Tools like the HPD and *Cradle to Cradle Certified™* Products Program enable C/S to clearly and credibly communicate product environmental and human health impacts.

- The HPD is a tool that enables manufacturers to **disclose** product contents and hazards in a consistent format.
- The *Cradle to Cradle Certified™* Product Standard is a rigorous multi-attribute, third-party certification designed to reward achievement in five categories. This program provides manufacturers with an **optimization** strategy for the material health of a product.

With approval from the Health Product Declaration Collaborative™ and the Cradle to Cradle Products Innovation Institute, C/S developed an HPD backed by the *Cradle to Cradle Certified™* Product Standard to better disclose current optimization levels.

- Ingredient assessments per the *Cradle to Cradle®* protocol have been placed into the HPD builder to communicate our ingredients and their hazard evaluation disclosed at 100 ppm (0.01%).
- Models covered by this HPD can contribute to the LEED® v4 Materials and Resources Credit, Option 1 building product disclosure and Option 2 optimization.
- The information provided in this HPD is based on multiple products. To view specific material ingredient percentages and additional *Cradle to Cradle®* details for these products, visit <http://transparency.c-sgroup.com>.
 - **Rigid Sheet:** WC-40N, WC-60N, WC-75N, RS-40AN, RS-60AN, TFC-40AN, TFCH-40AN, TFC-60AN, and TFCH-60AN
 - **Corner Guards:** FS-10MN, FS-10N, FS-20N, SFS-20N, SM-10N, SM-20AN, SM-20MN, SM-20N, SSM-10N, SSM-20AN, and SSM-20N
 - **Crash Rails:** BCR-40N, BCR-48N, BCR-50N, BCR-64N, BCR-80N, BG-10N, BG-30N, BL-100AN, BL-200AN, ECR-40N, ECR-48N, ECR-64N, FR-125N, FR-270N, SCR-40N, SCR-48MN, SCR-48N, SCR-50MN, SCR-50N, SCR-64MN, SCR-80MN, and SCR-80N
 - **Handrails:** HRB-20CMN, HRB-20N, HRB-35CMN, and HRB-35N

*Selecting healthy and optimized products is our industry's opportunity to **enhance the lives of future generations by making buildings better today.***

Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.



Acrovyn® Wall Protection Division
347 South Broad Street
Hughesville, Pennsylvania 17737
1.855.427.4844
www.c-sgroup.com

v01.15

Name Acrovyn® 4000 Cradle to Cradle Certified(TM) Rigid Sheet and Wall Guards



Product ID Wall Protection Classification 10 26 00.00 Specialties: Wall and Door Protection

Website www.c-sgroup.com/acrovyn/wall-protection

Manufacturer Construction Specialties, Inc. Contact Name Kendra Martz
Address 347 South Broad Street Title Sustainability Coordinator
Hughesville, PA 17737 Phone 5709401331
Email kmartz@c-sgroup.com

Description Wall Protection – Rigid Sheet, Corner Guards, Crash Rails and Handrails

Release Date 2015-01-08 Self-declared
Expiry Date 2018-01-08 Second Party Certifier
HPD URL <https://tool.hpdcollaborative.org/uploads/files/hpds/58/2024-20150108093754.pdf> Third Party Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure Full Disclosure of Intentional Ingredients Yes No
 Measured 100 ppm (ideal) Full Disclosure of Known Hazards Yes No
 Measured 1000 ppm
 Predicted by process chemistry Disclosure Notes
 As per MSDS (1,000 & 10,000 ppm)
 Not disclosed
 Other

Contents in Descending Order of Quantity

ALUMINUM , Polyethylene Terephthalate Glycol (PETG) , ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER , Polyethylene Terephthalate Glycol (PETG) , Undisclosed (Proprietary Additive) , Undisclosed (Colorant) , NYLON 6 , Undisclosed (Primer) , Undisclosed (Top Coating) , Undisclosed (Ink)

Hazards Highest concern GreenScreen score - List Translator Possible Benchmark 1
 PBT (Persistent Bioaccumulative Toxic) Development Neurotoxicity Land toxicity Multiple
 Cancer Reproductive Mammal Physical hazard Unknown
 Gene Mutation Endocrine Skin or Eye Global warming
 Respiratory Aquatic toxicity Ozone depletion

Total VOC Content
Material (g/L) N/A Does the product contain exempt VOCs? N/A Yes No
Regulatory (g/L) N/A Are there VOC-free tints available? N/A Yes No

Notes

Certifications + Compliance

VOC Emissions CHPS/Section 01350 Emission Manufacturer Claim VOC Content N/A
Multi-attribute MBDC Cradle to Cradle - Silver (Version 2.1.1) Multi-attribute MBDC Cradle to Cradle - Gold (Version 2.1.1)

The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit hpdcollaborative.org.

CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at www.hpdcollaborative.org/hazardlists.

GS: GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
ALUMINUM	7429-90-5	64 %	LT-P1	N	N	Retainer
ENDOCRINE	TEDX: Potential Endocrine Disruptor					
RESPIRATORY	AOEC: Asthmagen (ARs) - sensitizer-induced - inhalable forms only					
FLAMMABLE	EU H-Statements: H228 Flammable solid					
REACTIVE	EU H-Statements: H261 In contact with water releases flammable gases					
Aluminum assessed YELLOW under Cradle to Cradle® Protocol as Acceptable (one or more moderate risks to human health and/or environmental health; suitable for continued use until a GREEN alternative is found). Aluminum ranges from 0.00-89.00% of unit weight depending on model and role(s) – retainer, base, aluminum clips/splice retainer, or aluminum bracket. Recycled content also varies by model. Contact C/S factory for details.						
Polyethylene Terephthalate Glycol (PETG)	25640-14-6	24 %		N	N	Cover/Sheet and Regrind Bumper
None found	No warnings found on HPD Priority lists					
PETG assessed GREEN under Cradle to Cradle® Protocol as Preferred (little to no risk to human health and/or environmental health). PETG ranges 8.00-100.00% of unit weight depending on model and manufacturing variables. This ingredient may serve the role(s) – cover/sheet, regrind bumper, cover splice, or gasket. Contact C/S factory for details.						
ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER	9003-56-9	5 %	LT-U	N	N	End Caps and Brackets
None found	No warnings found on HPD Priority lists					
Acrylonitrile-Butadiene-Styrene Copolymer assessed YELLOW under Cradle to Cradle® Protocol as Acceptable (one or more moderate risks to human health and/or environmental health; suitable for continued use until a GREEN alternative is found). ABS ranges 0.00-21.00% of unit weight depending on model and manufacturing variables. This ingredient may serve the role(s) – end cap, brackets, splice bar, or cushions.						

Polyethylene Terephthalate Glycol (PETG)	25640-14-6	3.61 %		N	N	Decorative Film Base Resin
None found	No warnings found on HPD Priority lists					
Film base resin assessed GREEN under Cradle to Cradle® Protocol as Preferred (little to no risk to human health and/or environmental health). This ingredient only covers the standard 24 Chameleon pattern offerings. PETG film base resin ranges .00-25.2% of the unit weight depending on the model and manufacturing variables. This range starts at 0 since this ingredient is not applicable to solid colored Acrovyn 4000 products.						
Undisclosed (Proprietary Additive)	Unknown	1.32 %		N	N	Flame Retardant - PETG Cover/Sheet and Re grind Bumper
Unknown	Not disclosed					
Chemical identity is considered protected intellectual property by C/S but has been disclosed to MBDC (an accredited assessor for the Cradle to Cradle Products Innovation Institute). Additive assessed YELLOW under Cradle to Cradle® Protocol as Acceptable (one or more moderate risks to human health and/or environmental health; suitable for continued use until a GREEN alternative is found). Additive ranges 0.00- 8.40% of unit weight depending on model and manufacturing variables.						
Undisclosed (Colorant)	Unknown	1.06 %		N	N	Colorant - PETG Cover/Sheet
Unknown	Not disclosed					
Colorants for 53 Cradle to Cradle Certified(TM) Gold solid color offerings have been assessed YELLOW under Cradle to Cradle® Protocol as Acceptable (one or more moderate risks to human health and/or environmental health; suitable for continued use until a GREEN alternative is found). Colorants for 15 Cradle to Cradle Certified(TM) Silver solid color offerings and 24 Chameleon patterns have been assessed RED under the Cradle to Cradle® Protocol as Problematic (one or more significant risks to human and/or environmental health, should be phased out as quickly as possible; suitable for continued use until a YELLOW alternative is found). Colorant ranges 0.00-12.00% of unit weight for Acrovyn 4000 Rigid Sheet and Wall Guards depending on model and requirements. View standard solid color offerings and Cradle to Cradle certification levels at http://www.c-sgroup.com/acrovyn/wall-protection/finish/Acrovyn%20Solid%20Colors View standard Chameleon pattern offerings at http://www.c-sgroup.com/acrovyn/wall-protection/finish/Chameleon%20Simulated%20Wood%20and%20Metal						
NYLON 6	25038-54-4	1 %	LT-U	N	N	Bracket Hardware
None found	No warnings found on HPD Priority lists					
Component of Quick Lock Mounting Bracket used in certain handrail models assessed YELLOW under Cradle to Cradle® Protocol as Acceptable (one or more moderate risks to human health and/or environmental health; suitable for continued use until a GREEN alternative is found). Nylon 6 ranges 0.00-2.00% of unit weight depending on model. This range starts at 0 since this ingredient is not applicable to Acrovyn 4000 sheet and some wall guard models.						
Undisclosed (Primer)	Unknown	0 %		N	N	Decorative Film Primer
Unknown	Not disclosed					
Film primers used for 18 of the standard Chameleon pattern offerings assessed YELLOW under Cradle to Cradle® Protocol as Acceptable (one or more moderate risks to human health and/or environmental health; suitable for continued use until a GREEN alternative is found). Film primers used for 4 of the standard Chameleon pattern offerings assessed RED under the Cradle to Cradle® Protocol as Problematic (one or more significant risks to human and/or environmental health, should be phased out as quickly as possible; suitable for continued use until a YELLOW alternative is found). Film primers for the remaining 2 standard Chameleon pattern offerings assessed GRAY under the Cradle to Cradle® Protocol as Incomplete (either ingredient data is not complete or evaluation data is not available for one or more criteria. Data should be completed or ingredient should be phased out of use).This ingredient only covers the standard 24 Chameleon pattern offerings. Film primer ranges 0.00-0.003% of weight depending on model and color requirements. This range starts at 0 since this ingredient is not applicable to solid colored Acrovyn 4000 products.						
Undisclosed (Top Coating)	Unknown	0 %		N	N	Decorative Film Top Coating
Unknown	Not disclosed					
Film top coating assessed RED under the Cradle to Cradle® Protocol as Problematic (one or more significant risks to human and/or environmental health, should be phased out as quickly as possible; suitable for continued use until a YELLOW alternative is found). This ingredient only covers the standard 24 Chameleon pattern offerings. Top coating ranges 0.00-0.034% of the unit weight depending on model and color requirements. This range starts at 0 since this ingredient is not applicable to solid colored Acrovyn 4000 products.						
Undisclosed (Ink)	Unknown	0 %		PC	N	Decorative Film Ink

Unknown

Not disclosed

Film inks assessed RED under the Cradle to Cradle® Protocol as Problematic (one or more significant risks to human and/or environmental health, should be phased out as quickly as possible; suitable for continued use until a YELLOW alternative is found). This ingredient only covers the standard 24 Chameleon pattern offerings. Ink ranges .000-.031% of the unit weight depending on model and color requirements. This range starts at 0 since this ingredient is not applicable to solid colored Acrovyn 4000 products.

CERTIFICATIONS AND COMPLIANCE

Certifying Party = First: Manufacturer's self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

Applicable facilities = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	CHPS/Section 01350 Emission Manufacturer Claim			manufacturer self certified
	1st party manufacturer claim	2009-10-05		www.c-sgroup.com/files/tech-center/acrovyn/data_sheets/pdf/Acrovyn_4000_California_01350.pdf
	US Production			
	Tested per CDHS Standard CA/DHS/EHLB/R-174, 2004. Currently pursuing first-party certification per CDPH Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers v1.1 (ANSI/BIFMA M7.1).			
VOC Content	N/A			
Recycled Content	Not tested			
Multi-attribute	MBDC Cradle to Cradle - Silver (Version 2.1.1)			McDonough Braungart Design Chemistry (MBDC)
	3rd party independent certification	2014-05-11	2015-05-10	www.c-sgroup.com/files/literature/c2c-cert-silver-acrovyn-profile-sheet-film.pdf
	United States Facilities			
	This certificate applies to rigid sheet and wall guards in all 23 Cradle to Cradle Certified(TM) Silver Chameleon pattern decorative films and 15 certified silver solid colors. Acrovyn solid colors: 313 Vanilla, 253 Parchment, 519 Buttercream, 106 Brown, 320 Brick, 326 Rustic Red, 521 Spanish Moss, 522 Savannah, 853 Ocean Gray, 319 Saybrook Sage, 957 Bluestone, 129 Yale Blue, 520 Imperial Purple, 696 Olive Grove, and 318 Berry Red. Acrovyn Chameleon(TM) patterns: 381 Figured Anigre, 372 Classic Maple, 377 American Beech, 376 Northern Oak, 375 Autumn Maple, 373 Amber Cherry, 385 Royal Oak, 701 Ginger Root, 704 Brazilian Nut, 399 Cherry, 379 Honey Birch, 386 Honduras Mahogany, 383 Vintage Walnut, 382 Cocoa Maple, 374 Regal Mahogany, 380 Shaker Cherry, 378 Brushed Nickel, 410 Brushed Silver, 445 Berkshire Cherry, 342 Burnt Sugar, 656 Sunlight Maple, 654 Urbanwood, 658 Concrete, and 653 Ebony			

Walnut.

Multi-attribute	MBDC Cradle to Cradle - Gold (Version 2.1.1)			McDonough Braungart Design Chemistry (MBDC)
	3rd party independent certification	2014-05-11	2015-05-10	www.c-sgroup.com/files/tech-center/acrovyn/data_sheets/pdf/Acrovyn_4000_Wall_Protection_-_Profile_Select_Colors_Cradle_to_Cradle_Certified_CM_Gold_Certificate.pdf
United States Facilities				
This certificate applies to rigid sheet and wall guards in 53 Cradle to Cradle Certified(TM) Gold solid colors. Acrovyn solid colors: 949 White, 933 Mission White, 934 Pearl, 100 Eggshell, 858 Pumice, 517 Teton White, 310 Yosemite Sand, 101 French Cream, 920 Almond, 102 Desert Sand, 254 Wheat, 997 Irish Cream, 186 Champagne, 305 Mushroom, 196 Fawn, 103 Beige, 198 Beige Desert, 866 Doeskin, 479 Cappuccino, 480 Toffee, 303 Carmel, 929 Oyster Gray, 187 Tan Bark, 513 Khaki Brown, 105 Mocha, 193 Gingerspice, 307 Sienna, 316 Chestnut, 322 Peanut Brittle, 194 Chinchilla, 209 Slate, 317 Kona, 321 Russet, 311 Celery, 324 Underseas, 660 Sage Green, 323 Serene Green, 223 Danube, 325 Cape Blue, 930 Blue Silk, 848 Aspen, 309 Tranquil Blue, 927 Folkstone, 265 Fog, 262 Driftwood, 314 Ozark, 315 Galveston Gray, 136 Pearl Gray, 162 Charcoal, 108 Black, 984 Garden Sprout, 874 Riverbed, and 405 Colorado Trail.				

ACCESSORY MATERIALS

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products.

Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
Condition when required or recommended and/or other notes	
Acrovyn Wall Covering Trims	
As required for preferred installation for rigid sheet. Available for models: .040 WCN and .060 WCN.	
Mounting Hardware	
Required for warranted installations of profiles.	
Optional Crash Rail and Handrail Accent Reveals	
As required for preferred installation of Crash Rail and Handrails. Available for models: BCR50N, BCR80N, HRB20CMN, HRB20N, HRB35CMN, HRB35N, HRO6C, SCR50MN, SCR50N, SCR80MN, and SCR80N.	
COLORFLEX II CF9001 - Color Matching Caulk (VOC 20.00 g/L)	
As required for preferred installation of rigid sheet.	
Acrovyn Interiors Water-Based Mastic Primer (VOC 0.00 g/L)	
Used for installation of rigid sheet as required for wall conditions.	
Acrovyn Interiors Heavy-Duty Water Based Mastic Adhesive (VOC 0.00 g/L)	
Required for warranted installations of rigid sheet.	
Acrovyn 4000 Bracket Enclosure	
As required based on installation preferences. Available for models: HRB20N and HRB35N.	

NOTES

HPD percentages reflect the ingredients of Construction Specialties' Handrail with ABS Quick Lock Bracket model HRB-20N in 386 Honduras Mahogany. This specific model is Cradle to Cradle Certified™ Silver (v2.1.1). To see ranges for all colors and models, refer to the comments of each corresponding -

material ingredient. Visit <http://transparency.c-sgroup.com> to see more specific material ingredients percentages for other Cradle to Cradle Certified™ Gold and Silver Acrovyn® 4000 Wall Protection models.

- **Rigid Sheet:** WC-40N, WC-60N, WC-75N, RS-40AN, RS-60AN, TFC-40AN, TFCH-40AN, TFC-60AN, and TFCH-60AN
- **Corner Guards:** FS-10MN, FS-10N, FS-20N, SFS-20N, SM-10N, SM-20AN, SM-20MN, SM-20N, SSM-10N, SSM-20AN, and SSM-20N
- **Crash Rails:** BCR-40N, BCR-48N, BCR-50N, BCR-64N, BCR-80N, BG-10N, BG-30N, BL-100AN, BL-200AN, ECR-40N, ECR-48N, ECR-64N, FR-125N, FR-270N, SCR-40N, SCR-48MN, SCR-48N, SCR-50MN, SCR-50N, SCR-64MN, SCR-80MN, and SCR-80N
- **Handrails:** HRB-20CMN, HRB-20N, HRB-35CMN, and HRB-35N

Referenced Cradle to Cradle® assessment levels are per MBDC Material Health assessments prepared May 2014 which covers most Acrovyn 4000 rigid sheet and wall guard products in standard solid colors and Chameleon pattern decorative film.

Construction Specialties' MBDC and Cradle to Cradle® documentation is available on our Transparency Label website <http://transparency.c-sgroup.com>; refer to certificates and reports for Acrovyn 4000 Wall Protection.

Cradle to Cradle Certified™ is a third-party sustainability label that verifies Construction Specialties' commitment to avoid products that are harmful to humans, animals, and the environment when there are reasonable alternatives. The Cradle to Cradle® design protocol calls for materials to be defined as technical or biological nutrients that are safe and healthy for humans and the environment.

C/S' Cradle to Cradle Certified™ Gold and Silver Acrovyn 4000 products meet the requirements of the Living Building Challenge Materials Red List, a list of chemicals identified by the International Living Future Institute as ones that should be phased out of production due to health concerns.

These products can also contribute to LEED® v4 Materials and Resources Credit, Option 1 building product disclosure and Option 2 optimization. These credits were added to LEED v4 to improve environmental and health performance of building material selections through transparency.

C/S is currently pursuing first-party certification per CDPH Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers v1.1 (ANSI/BIFMA M7.1)

Construction Specialties' products are listed on GreenWizard.

Data Source Documents and Links

- Acrovyn® Wall and Door Protection Catalog
<http://csliterature.c-sgroup.com/catalogs/acrovyn/>
- Cradle to Cradle Product Innovation Institute – Product Certification
http://www.c2ccertified.org/product_certification
- Statement of Compliance Living Building Challenge – Red List
http://www.c-sgroup.com/files/literature/MBDC_Acrovyn_Red_List_Letter.pdf
- GreenWizard
<http://www.greenwizard.com/>
- Construction Specialties, Inc. Environmental Policy
www.c-sgroup.com/files/literature/environmental-positioning-statement.pdf
- Acrovyn 4000 Data Sheet
www.c-sgroup.com/files/literature/acrovyn-4000-data-sheet.pdf
- Acrovyn 4000 MSDS
www.c-sgroup.com/files/tech-center/acrovyn/msds/pdf/acrovyn_4000_d_msds.pdf
- C/S Acrovyn Chameleon Collection Limited Lifetime Warranty
www.c-sgroup.com/files/literature/acrovyn_chameleon_warranty.pdf
- Five Year Limited Warranty Policy
www.c-sgroup.com/files/literature/acrovyn_warranty.pdf
- Acrovyn Wall Protection System Care & Maintenance
www.c-sgroup.com/files/literature/acrovyn-care.pdf