

**GENERAL NOTES:**

CPI WILL MAKE ALL FURTHER DESIGN DECISIONS BASED UPON THE INFORMATION PROVIDED ON THIS FORM. ALL ELEMENTS WILL BE SYMMETRICAL WITHIN THE UNIT AND CPI STANDARD VALUES WILL BE USED THROUGHOUT.

ALL EXTRUDED ALUMINUM FRAMING MEMBERS SHALL BE OF A 6063-T6 OR 6005-T5 ALLOY AND TEMPER.

ALL FASTENERS SHALL BE OF A NON-CORRODING MATERIAL.

CURB FASTENERS WILL BE DETERMINED BY CURB CONSTRUCTION (WOOD, STEEL)

ONE (1) PART SILICONE SEALANT, DOW CORNING SERIES #999 TO BE USED WHERE SHOWN.

MINIMUM CURB THICKNESS MUST BE 4" OR GREATER. THE SUPPORT CURBS SHALL BE DESIGNED AND CONSTRUCTED BY OTHERS TO RESIST LOADS IMPOSED BY THE SKYLIGHT. SEE CURB LOAD INFORMATION ON FOLLOWING SHEETS.

UNITS ARE SHIPPED FULLY PRE-ASSEMBLED. SHOP DRAWINGS FOR INSTALLATION SHIP WITH UNITS.

ALL UNITS WILL HAVE A STANDARD 21% RISE FOR VAULTS AND 12:12 PITCH FOR RIDGES.

**TEST REPORT CERTIFICATION:**

CPI CERTIFIES THAT THE GLAZING PANELS MEET THE FOLLOWING STANDARDS.

TEST DESCRIPTION	TEST STANDARD	RESULTS	CPI REPORT #
EVALUATION REPORT	IBC	IBC EVALUATION REPORT #4798	111
CODE CLASSIFICATION	IBC CHAPTER 26	APPROVED LIGHT TRANSMITTING PLASTICS, CC1 RATING	
FLAMABILITY			
SELF IGNITION	ASTM 1929-3	1058F	211
SMOKE DENSITY OF PLASTIC	ASTM D2843	54%	210
BURN EXTENT	ASTM D635	CC1 RATING - LESS THAN 1.0" BURN EXTENT	
INTERIOR FLAME SPREAD & SMOKE DEVELOPMENT	ASTM E84	CLASS A FLAME SPREAD & SMOKE DEVELOPMENT RATING - FLAME SPREAD INDEX LESS THAN 25	213A, 214 215
WEATHERING			
COLOR CHANGE	ASTM D2244	NO MORE THAN 4 UNITS DELTA E AFTER 60 MONTHS	411, 412
WEATHERING	ASTM D4364 & E903	TOTAL SOLAR TRANSMITTANCE, 60 MONTHS	410
LIGHT TRANSMISSION	ASTM D1003	SHALL NOT DECREASE MORE THAN 6% AFTER 10YRS	413
HEAT EXPOSURE	300F - 25MIN	HEAT EXPOSURE EVALUATION STANDARD PASSED	411
WATER PENETRATION	ASTM E331	NO PENETRATION OF U CONNECTORS AT 6.24PSF	322
FIELD TEST WATER PENETRATION	AAMA 501.2	NO PENETRATION	
IMPACT RESISTANCE	SPI METHOD B	220 FT-LBS	513B
LARGE MISSILE CANNON TEST	ASTM E1886/E1996	WITHSTANDS LARGE MISSILE IMPACT OF 350 FT-LBS	512A
OSHA - POINT LOAD	29 CFR 1910.23	300 LB POINT LOAD WITH NO DAMAGE	515
OSHA - FALL / WALK THROUGH	ASTM E695-03	500 FT-LBS	512A
U FACTOR	PER NFRC 100	CENTER OF GLASS, 12MM/16MM	310A, 310C

**ICC-ES Evaluation Report**

**ESR-1253**

[www.icc-es.org](http://www.icc-es.org) | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS  
Section: 08 84 00—Plastic Glazing

**REPORT HOLDER:**

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(847) 816-1060  
[www.cpidaylighting.com](http://www.cpidaylighting.com)

**EVALUATION SUBJECT**

QUADWALL, UNIQUAD, PENTAGLAS, DUALWALL AND U-LITE PANELS

**1.0 EVALUATION SCOPE**

Compliance with the following codes:

- 2012, 2009 and 2006 International Building Code® (IBC)
- 2013 Abu Dhabi International Building Code (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

**Property evaluated:**

Light-transmitting plastics

**2.0 USES**

The Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite panels described in this report comply with the requirements for light-transmitting plastics in 2012, 2009 and 2006 IBC Section 2606.4. End use of the panels is outside the scope of this report, thereby requiring that compliance with the IBC requirements applicable to the end use (such as, but not limited to, structural and durability performance) be demonstrated to the code official.

**3.0 DESCRIPTION**

The Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite translucent polycarbonate panels recognized in this report are light-transmitting plastics complying with IBC Section 2606.4, and have a CC1 plastic combustibility classification. The panels are available in up to a 45.3-foot (13 800 mm) length and in various widths, thicknesses and configurations. See Table 1 and Figure

1 for size and configuration details. As shown in Table 1 and Figure 1, the 8- and 10-millimeter-thick Quadwall, UniQuad, and Pentaglas panels are identical panels, except for the product name.

**4.0 INSTALLATION**

Use of the Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite panels recognized in this report is limited to applications permitted by the IBC for light-transmitting plastics. The manufacturer's published installation instructions and this report must be strictly adhered to.

**5.0 CONDITIONS OF USE**

The Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite panels described in this report comply with, or are suitable alternatives to what is specified in, those codes indicated in Section 1.0 of this report, subject to the following conditions:

5.1 The panels are manufactured, installed and identified as called for in this report, the IBC and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.

5.2 End use of the panels requires justification of compliance with appropriate code requirements, including installation, structural, impact and durability considerations.

**6.0 EVIDENCE SUBMITTED**

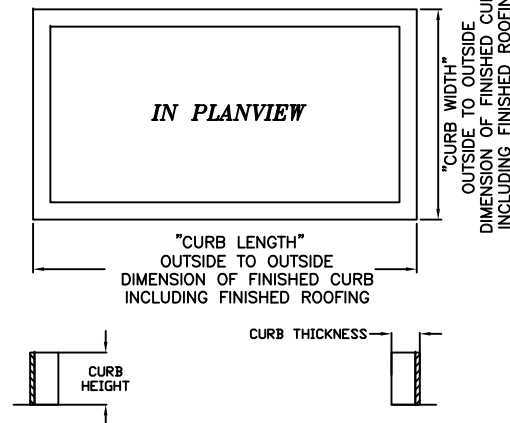
6.1 Reports of tests in accordance with ASTM D1929, ASTM D2843, ASTM D635, and ASTM E84.

6.2 Quality documentation.

**7.0 IDENTIFICATION**

The panels are identified with a label bearing the manufacturer's name (CPI Daylighting), the product name (Quadwall, UniQuad, Pentaglas, Dualwall or U-Lite), the CC1 plastic classification and the evaluation report number (ESR-1253).

**CURB TERMINOLOGY:**



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**TOPLITE - SINGLE PANEL - SKYLIGHTS - VAULT, RIDGE**

**FULLY PRE-ASSEMBLED UNITS UP TO 6' WIDE AND 23' LONG**

**- DATA ENTRY FORM -**

- ① SKYLIGHT SHAPE:  
 VAULT W/ GABLE ENDS  
 RIDGE W/ GABLE ENDS
- ② CURB MATERIAL:  
 STEEL MINIMUM 12GA STEEL CURB WILL BE REQUIRED.  
 WOOD MINIMUM OF (2) 2" X 6" LUMBER WILL BE REQUIRED AT SILL. (DOUGLAS FIR, G = 0.49 MIN)

- ③ GLAZING THICKNESS:  
 12MM (FOR VAULT ONLY) - 2' TO 5' WIDTHS  
 16MM (FOR VAULT AND RIDGE) - 2' TO 6' WIDTHS
- ④ CURB DIMENSIONS:  
 CURB LENGTH: \_\_\_\_\_ (EXACT OUT-TO-OUT TO NEAREST 1/16")  
 MAXIMUM LENGTH 23'  
 CURB WIDTH: \_\_\_\_\_ (EXACT OUT-TO-OUT TO NEAREST 1/16")  
 VAULT - MAX. 5' FOR 12MM PANEL  
 - MAX. 6' FOR 16MM PANEL  
 RIDGE - MAX. 6' FOR 16MM PANEL

12MM PANEL	LT %	U-VALUE
CLEAR	71	0.48
ICE WHITE	66	0.48

16MM PANEL	LT %	U-VALUE
CLEAR	58	0.38
ICE WHITE	47	0.38

- ⑤ GLAZING COLOR:  
 CLEAR  
 ICE WHITE

- ⑥ ALUMINUM FINISH & COLOR:  
 MILL  
 STANDARD CPI CRF (2603)  
 PREMIUM CPI CRF (2604)  
 PREMIUM+ CPI CRF (2605)/STD. 70% KYNAR (2 COAT)  
 ANODIZED \_\_\_\_\_
- COLOR NAME \_\_\_\_\_  
 COLOR CODE \_\_\_\_\_
- CLEAR 204-R1  
 CLEAR 215-R1  
 DARK BRONZE ANO-303

- ⑦ QUANTITY OF IDENTICAL UNITS: \_\_\_\_\_  
 (PLEASE USE SEPARATE SUBMITTAL FORMS FOR VARYING SKYLIGHT SHAPES AND SIZES.)

- ⑧ AUTHORIZATION TO PROCEED:  
 THIS PAGE DEFINES ALL SPECIFICATIONS FOR THIS SKYLIGHT ORDER - I HAVE NO FURTHER SPECIFICATIONS OR REQUIREMENTS.
- CPI QUOTE #: \_\_\_\_\_ ITEM #: \_\_\_\_\_  
 PROJECT NAME: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_  
 AUTHORIZED SIGNER: (PLEASE PRINT) \_\_\_\_\_  
 DATE: \_\_\_\_\_

NOTE: COMPLETE JOB INFO SHEET REQUIRED BEFORE RELEASE TO FABRICATION.

MAXIMUM DIRECT<sup>2</sup>FAB LOADS ARE AS FOLLOWS:  
 40PSF WIND-UPLIFT  
 25PSF WIND-DOWNWARD  
 30PSF SNOW/LIVE

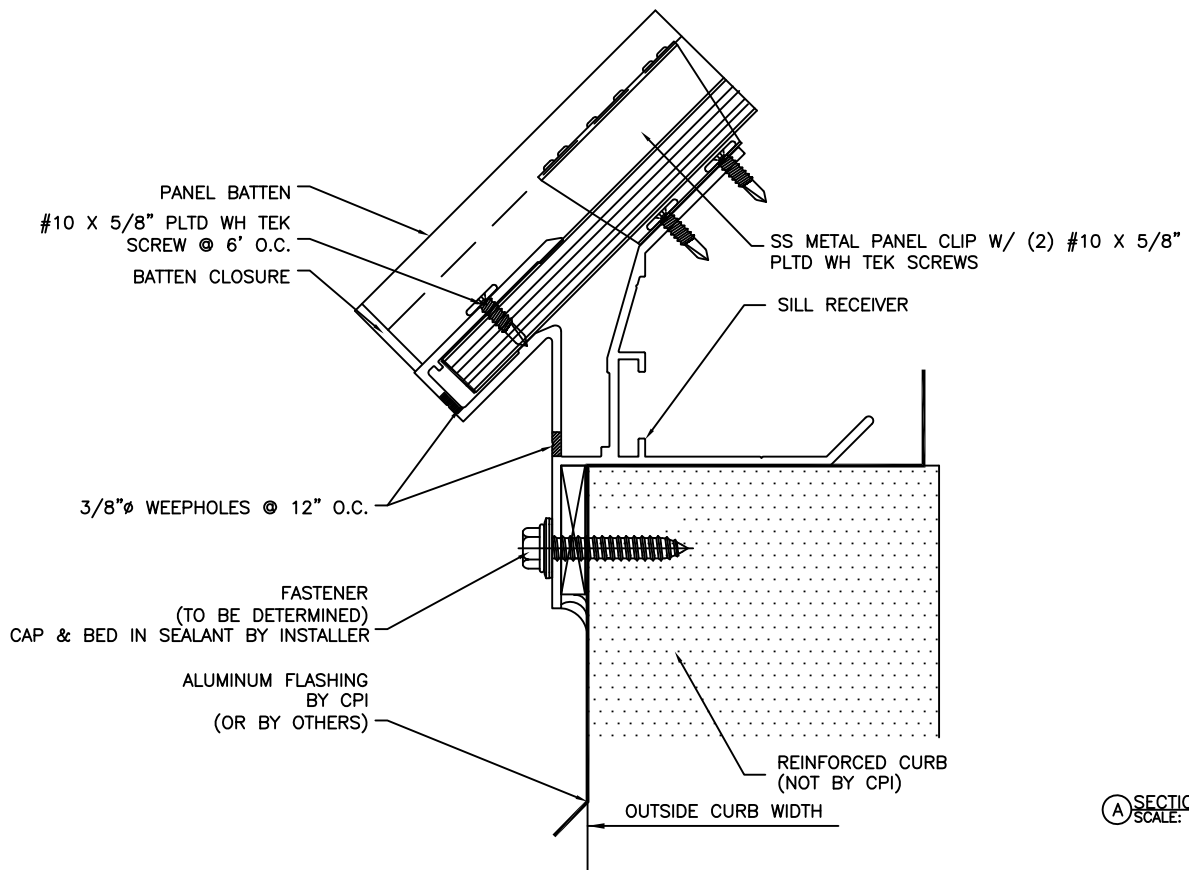
DIRECT<sup>2</sup>FAB SYSTEMS WERE DESIGNED BASED ON ASD LOAD COMBINATIONS OF THE MAXIMUM LOADS ACCORDING TO ASCE7.  
 SNOW/LIVE LOAD MUST INCLUDE A COMBINATION OF BALANCED SNOW LOAD AND ANY ASSOCIATED DRIFT LOAD.

**DIRECT<sup>2</sup>FAB**

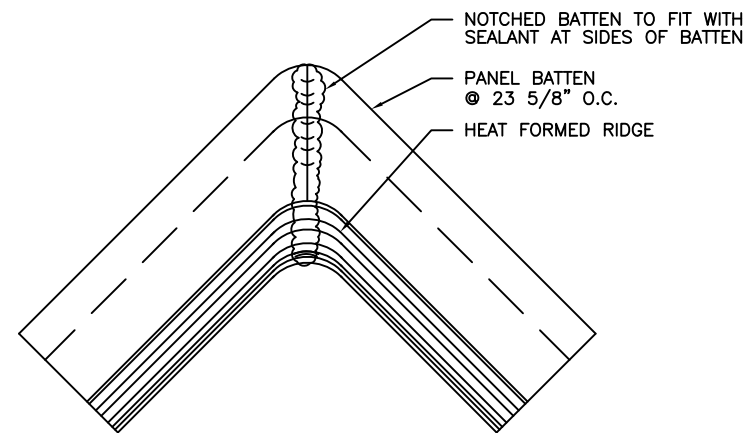
SUBMITTAL PACKAGE  
 RECTANGULAR TOPLITE SKYLIGHTS, UP TO 6FT WIDE AND 23' LONG  
 TOPLITE-SINGLE PANEL-SKYLIGHTS-VAULT, RIDGE  
 GENERAL NOTES, TECHNICAL DATA  
 "DIRECTLY FROM ORDER ENTRY TO FABRICATION FLOOR"

**CPI Daylighting**  
 Building Envelope Solutions

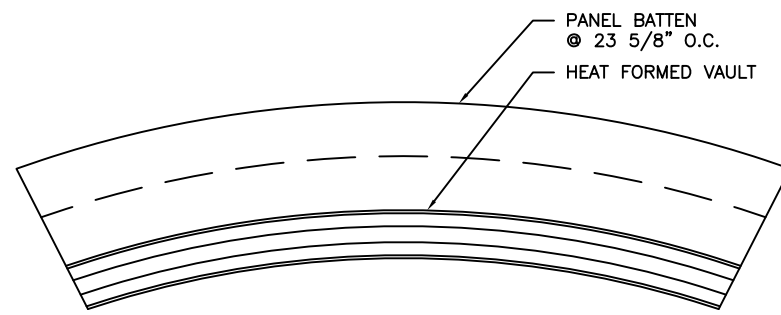
**Kingspan**  
 Light+Air



(A) SECTION @ SILL  
SCALE: HALF

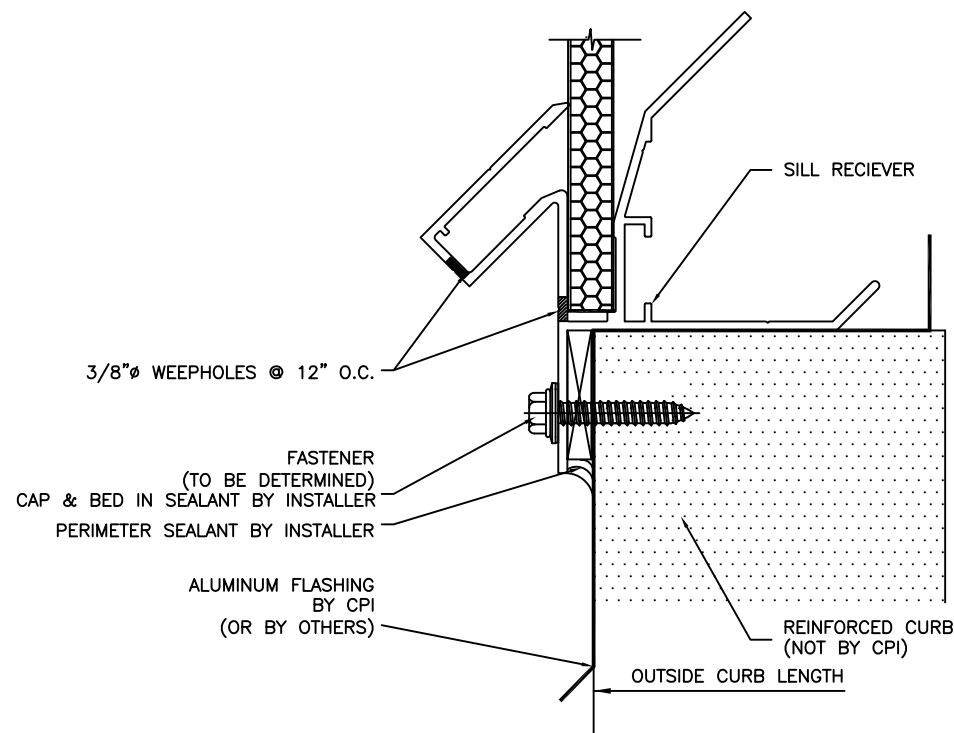
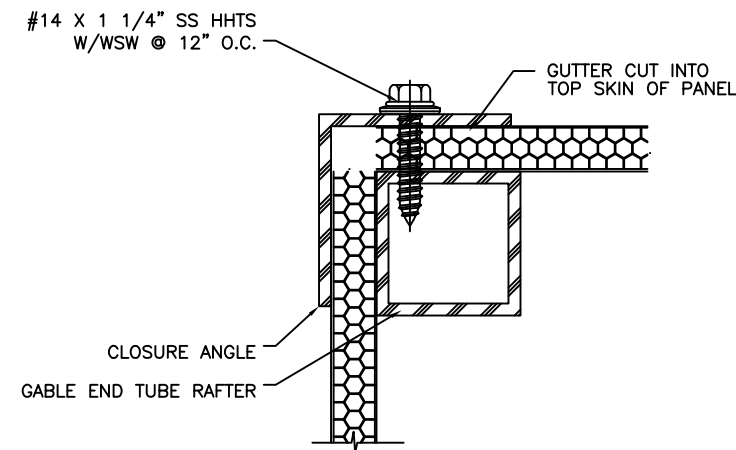


(B) SECTION @ RIDGE APEX  
SCALE: HALF

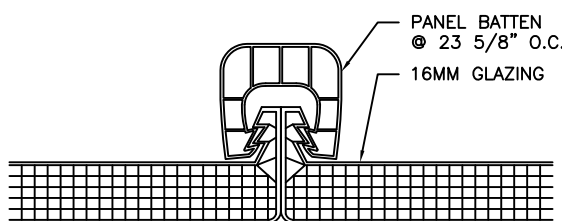
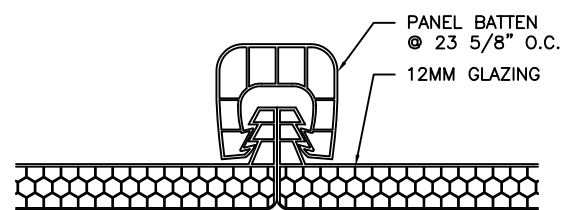


(B2) SECTION @ VAULT APEX  
SCALE: HALF

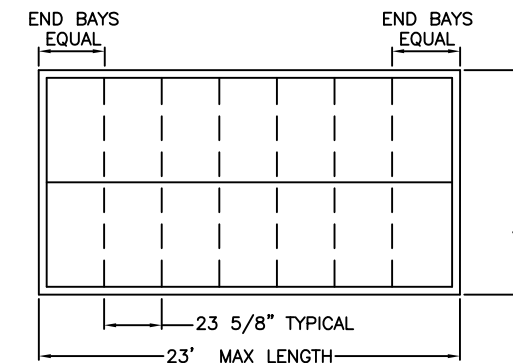
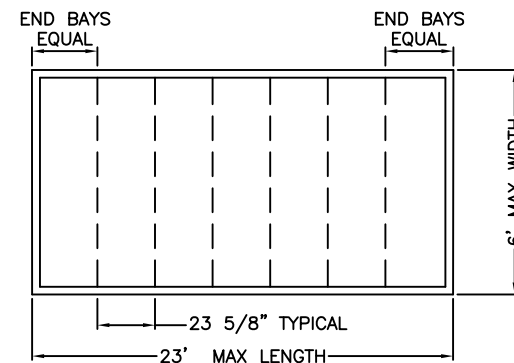
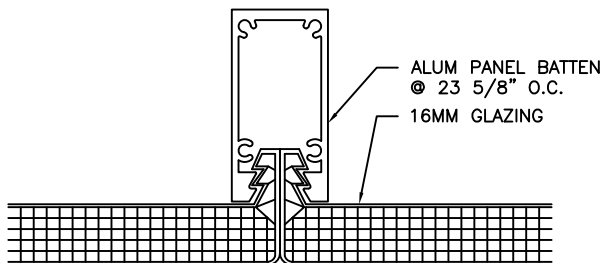
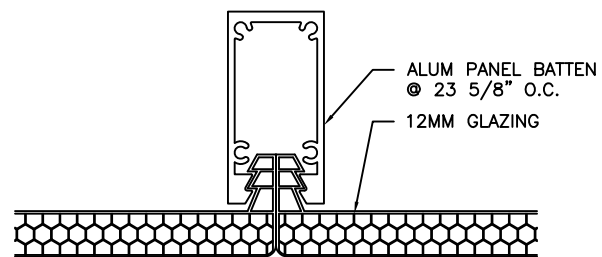
NOTE: SCALE OF DETAILS WILL BE ACCURATE ONLY WHEN PRINTED WITH 1:1 SCALING ON 11 X 17 PAPER



(D) SECTION @ GABLE END  
SCALE: HALF



(C) SECTION @ BATTEN  
SCALE: HALF



NOTE: ALL UNITS SHARE THESE DETAILS. SYSTEM IS SHOWN AS 12MM SINGLE PANEL THICKNESS.

# CPICRF™ Paint & Anodized Finishes

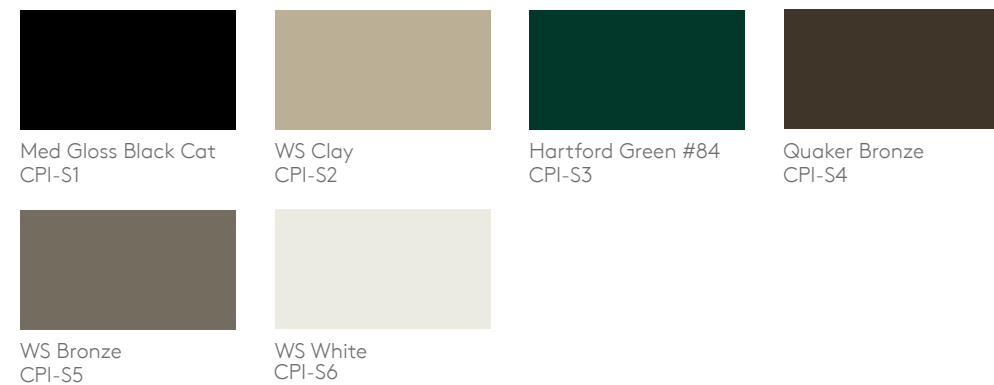
High Performance Architectural Coatings

CPICRF is a Corrosion Resistant Finish coating that includes Kynar®, Trinar®, or Hylar® fluoropolymer\* and TGIC Polyester resins.

## Standard Paint Finish Colors

### CPICRF | TGIC Polyester resin powder coating (AAMA 2603) ..... 1 or 5-year warranty

This economical and eco-friendly coating is available in a wide range of standard paint colors, and does not emit VOC gases into the atmosphere. CPICRF meets AAMA 2603 and comes with a 1-year standard warranty, or an optional 5-year extended warranty.



### CPICRF - Premium | Polymer resin powder coating (AAMA 2604) ..... 10-year warranty

This eco-friendly coating is available in a wide range of premium paint colors, and does not emit VOC gases into the atmosphere. CPICRF - Premium meets AAMA 2604 and comes with a 10-year standard warranty.



### CPICRF - Premium Plus (Kynar®) | 70% PVDF (AAMA 2605) ..... 10 or 20-year warranty

This 2-coat Kynar finish is available in a variety of premium paint colors. CPICRF - Premium Plus meets AAMA 2605 and comes with a 10-year standard warranty, or an optional 20-year extended warranty.



## Anodized Finishes

### CPI Anodized Finishes | Class II (204), Class I (215), and color ..... 1 or 5-year warranty

CPI Daylighting offers anodized finishes - Clear Anodized and Dark Bronze Anodized. The anodized finish comes with a 1-year standard warranty with an option for a 5-year extended warranty.

The colors shown are not exact and may vary slightly from the actual colors - Physical samples on aluminum substrates are available for final color selection. For exact colors, please contact us at 1.800.759.6985 to order color samples. Slight color variation can be expected in production. Color options are also subject to change. Please contact CPI Daylighting to confirm availability.

\*Kynar® is a registered trademark of Arkema - Trinar® is a registered trademark of AkzoNobel - Hylar® is a registered trademark of Solvay