ICC-ES Evaluation Report

ESR-3676

Reissued July 2024

Subject to renewal July 2025

This report also contains:

- CBC Supplement

- FBC Supplement

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

DIVISION: 08 00 00—OPENINGS Section: 08 84 00—Plastic Glazing	REPORT HOLDER: 3FORM	EVALUATION SUBJECT: CHROMA®, CHROMA XT®, KODA XT®, AND VARIA ECORESIN®	

1.0 EVALUATION SCOPE

Compliance with the following codes:

■ 2021, 2018, 2015, 2012 and 2009 *International Building Code®* (IBC)

Property evaluated:

■ Light-transmitting plastics

■ Surface-burning characteristics

■ Durability

2.0 USES

The Chroma®, Chroma XT®, Koda XT®, and Varia Ecoresin® panels are light-transmitting plastics complying with IBC Section 2606.4 for interior use and/or use as interior finishes complying with IBC Section 803.1. The Koda XT® panels may also be used in exterior applications. See Tables 1 through 3 for properties and classifications.

3.0 DESCRIPTION

3.1 General:

The Chroma®, Chroma XT®, Koda XT®, and Varia Ecoresin® panels are available in different colors and different surface finishes that are imparted into the panel during the manufacturing process. The panel available widths are 60 inches (1.52 m) and the panel available lengths are up to 120 inches (3.05 m).

3.2 Chroma® and Chroma XT®:

The Chroma® and Chroma XT® panels are solid monolithic acrylic-based panels.

3.3 Koda XT®:

The Koda XT® panels are solid monolithic polycarbonate-based panels.

3.4 Varia Ecoresin®:

Varia Ecoresin® plastic products are co-polyester based panels available with or without decorative interlayers. The interlayers are either encapsulated within the panel or adhered between two sheets of plastic (laminated).

4.0 INSTALLATION

Use of the panels, except the Koda XT® panels, is limited to interior use applications permitted by the IBC for light-transmitting plastics and interior finish, as applicable. The Koda XT® panels may also be used in exterior applications.

When use is for interior finish, installation must be in accordance with the IBC.

5.0 CONDITIONS OF USE:

The products described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The product must be manufactured, installed, and identified in accordance with this report and the IBC.

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

5.3 Installation is limited to interior use, except for the Koda XT® panels.

6.0 EVIDENCE SUBMITTED

6.1 Reports of tests in accordance with ASTM D2843, ASTM D635, ASTM D1929, ASTM E84, and NFPA 286.

6.2 Reports of weathering tests (ultraviolet-light tests and comparison tension tests) in accordance with Section 4.1.2 of the ICC-ES Acceptance Criteria for Plastic Glazed Skylights (AC16), dated April 2020 (editorially revised August 2020) for Koda XT® panels.

7.0 IDENTIFICATION

7.1 Each panel is identified by a label bearing the manufacturer's name (3form); the panel name; the plastic classification (CC1 or CC2, as applicable); the interior finish classification complying with ASTM E84 (Class A, B, or C) and/or the interior finish classification complying with NFPA 286 (wall or wall and ceiling), as applicable; and the evaluation report number (ESR-3676).

7.2 The report holder's contact information is the following:

3FORM
2300 SOUTH 2300 WEST, SUITE B
SALT LAKE CITY, UTAH 84119
(801) 649-2500
www.3-form.com

TABLE 1—CHROMA® AND CHROMA XT® PROPERTIES & CLASSIFICATIONS
(solid monolithic acrylic-based panels)

THICKNESSES (inch)	SHEET WEIGHTS WEIGHT (lb/ft^2)	INTERIOR FINISH CLASSIFICATION	PLASTIC CLASSIFICATION
$^1/_4$	1.5	-	CC2
$^1/_2$	3.1	C	CC2
1	6.2	C	CC2

TABLE 2—KODA XT® PROPERTIES & CLASSIFICATIONS
(solid monolithic polycarbonate-based panels)

THICKNESSES (inch)	SHEET WEIGHTS WEIGHT (lb/ft^2)	INTERIOR FINISH CLASSIFICATION	PLASTIC CLASSIFICATION
$^1/_4$	1.5	B	CC1
$^1/_2$	3.1	B	CC1

TABLE 3A—VARIA ECORESIN® WITHOUT INTERLAYERS
(co-polyester based panels)

THICKNESSES (inch)	SHEET WEIGHTS WEIGHT (lb/ft^2)	INTERIOR FINISH CLASSIFICATION		PLASTIC CLASSIFICATION
$^3/_{16}$	1.2	A	Wall and Ceiling[1]	CC2
$^1/_4$	1.7	B	Wall and Ceiling[1]	CC1
$^3/_8$	2.5	B	Wall[1]	CC1
$^1/_2$	3.3	B	-	CC1
1	6.6	A	-	CC1

[1]Based on room corner fire testing in accordance with NFPA 286, when the panel is installed over $^5/_8$ inch Type X gypsum board

TABLE 3B—VARIA ECORESIN® PANELS WITH ENCAPSULATED INTERLAYERS
(co-polyester based panels)

PRODUCT NAME	INTERLAYER	INTERLAYER THICKNESS (inch)	TOTAL THICKNESSES (inch)	SHEET WEIGHTS WEIGHT (lb/ft^2)	INTERIOR FINISH CLASSIFICATION
Varia Ecoresin	100% polyester fabric	≤ 0.008	$^1/_4$ to 1	1.7 to 6.8	B
Varia Ecoresin	organic materials (leaves, flowers, grasses, and wood)	≤ 0.125	$^1/_2$ to 1	3.3 to 6.6	B
Varia Ecoresin Timber Natural Latitude	wood	≤ 0.25	$^3/_8$	1.6	B

TABLE 3C—VARIA ECORESIN® LAMINATED PANELS WITH ADHERED INTERLAYERS
(co-polyester based panels)

PRODUCT NAME	INTERLAYER	INTERLAYER THICKNESS (inch)	TOTAL THICKNESSES (inch)	SHEET WEIGHTS WEIGHT (lb/ft^2)	INTERIOR FINISH CLASSIFICATION
Varia Ecoresin Wood	wood	≤ 0.0120	$^1/_4$	1.7	B
Varia Ecoresin Dichroic	dichroic film	≤ 0.008	$^1/_4$	1.7	B

ICC-ES Evaluation Report

ES
ICC EVALUATION SERVICE®

ESR-3676 CBC Supplement

Reissued July 2024

This report is subject to renewal July 2025.

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:

3FORM

EVALUATION SUBJECT:

CHROMA®, CHROMA XT®, KODA XT®, AND VARIA ECORESIN®

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Chroma®, Chroma XT®, Koda XT®, and Varia Ecoresin®, described in ICC-ES evaluation report ESR-3676, have also been evaluated for compliance with the code noted below.

Applicable code edition:

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) aka: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

2.0 CONCLUSIONS

2.1 CBC:

The Chroma®, Chroma XT®, Koda XT®, and Varia Ecoresin®, described in Sections 2.0 through 7.0 of the evaluation report ESR-3676, comply with CBC Chapter 26, provided the design and installation are in accordance with the 2018 *International Building Code®* (IBC) provisions noted in the evaluation report.

2.1.1 OSHPD: The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

This supplement expires concurrently with the evaluation report, reissued July 2024.

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

REPORT HOLDER:

3FORM

EVALUATION SUBJECT:

CHROMA®, CHROMA XT®, KODA XT®, AND VARIA ECORESIN®

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Chroma®, Chroma XT®, Koda XT®, and Varia Ecoresin® panels, described in ICC-ES evaluation report ESR-3676, have also been evaluated for compliance with the code noted below.

Applicable code editions:

■ 2020 and 2017 *Florida Building Code—Building*

2.0 CONCLUSIONS

The Chroma®, Chroma XT®, Koda XT®, and Varia Ecoresin® panels, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-3676, comply with the 2020 and 2017 *Florida Building Code—Building*, provided the design requirements are determined in accordance with the *Florida Building Code—Building*. The installation requirements noted in ICC-ES evaluation report ESR-3676 for the 2018 and 2015 *International Building Code®* meet the requirements of the *Florida Building Code—Building*.

Use of the Koda XT® panels have also been found to be in compliance with the High-Velocity Hurricane Zone provisions of Section 2615 of the *Florida Building Code—Building*.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued July 2024.