



ICC-ES Evaluation Report ESR-3721

Reissued July 2022

This report is subject to renewal June 2024.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 42 00—Wall Panels

Section: 07 42 63—Fabricated Wall Panel Assemblies

Section: 07 44 16—Porcelain Enameled Faced Panels

REPORT HOLDER:

COSENTINO NORTH AMERICA

EVALUATION SUBJECT:

COSENTINO DEKTON WALL PANEL CLADDING SYSTEM

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012 and 2009 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)

Properties evaluated:

- Weather resistance
- Wind load resistance
- Interior finish
- Types I, II, III and IV Construction

2.0 USES

The Cosentino Dekton Wall Panel Cladding System is used as a nonload-bearing exterior wall facade on nonfire-resistance-rated buildings of any type of construction. The system may be used as a nonload-bearing exterior wall covering on nonfire-resistance-rated buildings of Type I, II, III and IV construction when installed in accordance with Section 4.4.

The system is also intended for use in interior applications as a Class A interior wall finish.

3.0 DESCRIPTION

3.1 General:

Cosentino Dekton Wall Panel Cladding System is an open-jointed wall covering system that allows air to circulate between the panels and the exterior face of the installed water-resistive barrier. The panels are held in place by

aluminum hanger fix members mounted on an extruded aluminum substructure fastened to the building substrate.

3.2 Components:

3.2.1 Panels: The Cosentino Dekton wall panels are comprised of a proprietary blend of inorganic minerals. The panels have a fiberglass mesh attached to the back of the panel for the wall panel installation described in Section 4.0 of this report. The panels measure 4 feet 8 inches (1422 mm) wide by 10½ feet (3200 mm) long, have a nominal thickness of 12 millimeters (0.472 inch) and are available in a variety of surface finishes, colors and textures. The panels contain a 0.35-inch (8.9 mm) deep predrilled undercut hole with a 0.25-inch (6.4 mm) diameter for the installation of panels to the substructure with a concealed fastening system.

The panels have a flame spread index of less than 25 and a smoke developed index of less than 450 when tested in accordance with ASTM E84, and are classified as noncombustible in accordance with ASTM E136.

3.2.2 Substructure: The aluminum substructure consists of 6005-T6 aluminum allow vertical T-profile or L-profile members attached to the building substrate with 6060-T6 aluminum allow L-shaped brackets (simple bracket and double bracket). The T-profile or L-profile members must be fastened to the L-shaped brackets using ¼-inch by 3-inch-long (6.35 mm by 76 mm) self-drilling stainless steel screws provided with the system. See Figure 1.

3.2.3 Concealed Fastening System: Horizontal channels (C-carrier profile) are attached to the substructure with ¼-inch by 3-inches long (6.35 mm by 76 mm) self-drilling stainless steel screws provided with the system. C-hanger fix mounting brackets are attached to the panels through the 0.35-inch (8.9 mm) deep predrilled undercut holes in the panel with Keil anchors.

4.0 DESIGN AND INSTALLATION

4.1 General:

The Cosentino Dekton Wall Panel Cladding System must be installed in accordance with the manufacturer's published installation instructions, the project-specific structural calculations and details, and this report. A copy of the installation instructions must be available on the jobsite during construction.

4.2 Design:

The allowable wind loads for the Cosentino Dekton Wall Panel Cladding System, given in Table 1, and the wind load capacity of the underlying wall and substrate must equal or exceed the design uniform transverse wind loads determined in accordance with Chapter 16 of the IBC. The substructure system connections used to connect the wall panels to the underlying wall or substrate must be designed by a registered design professional and the details must be submitted to the code official for approval. The allowable loads must be reduced to the capacity of the attachment system connections if these are less than the values in Table 1.

4.3 Installation:

The Cosentino Dekton Wall Panel Cladding System must be installed over wall assemblies complying with 2021 and 2018 IBC Section 1402.3 (2015, 2012 and 2009 IBC Section 1403.3), capable of supporting the imposed loads, including but not limited to, transverse wind loads. The substructure L-shaped brackets must be securely fastened to the supporting wall with corrosion-resistant fasteners that are compatible with the substructure materials and wall assembly substrate.

Exterior wall assemblies on which the system is to be installed must include flashing, a water-resistive barrier, a means of draining water, and protection against condensation in accordance with 2021 and 2018 IBC Section 1402.2 (2015, 2012 and 2009 IBC Section 1403.2).

4.3.1 Substructure System Installation: The system must be installed over wall assemblies complying with 2021 and 2018 IBC Section 1402.3 (2015, 2012 and 2009 IBC Section 1403.3), using the substructure components described in Section 3.2.2 of this report. The L-shaped double brackets and simple brackets must be fastened to the building substrate at a maximum spacing of 26 inches (673 mm) on center, both vertically and horizontally. The vertical T-profiles and L-profiles must be attached to the L-shaped brackets using the 1/4-inch by 3-inches long (6.35 mm by 76 mm) self-drilling stainless steel screws provided with the system. The horizontal C-carrier profile must be attached to the vertical profiles (T-profile or L-profile) at every intersection using the 1/4-inch by 3-inches long (6.35 mm by 76 mm) self-drilling stainless steel screws provided with the system.

4.3.2 Panel Fastening: The Cosentino Dekton Wall panels must be attached to the substructure using Keil anchors. The C-Hangers Fix members are attached to the wall panels using Keil anchors. The wall panels, with the C-hanger fix members attached are then installed to the horizontal profile (C-carrier profile) at a maximum spacing of 40 inches (1016 mm) on center vertically and 26 inches (660 mm) on center horizontally. See Figure 2.

4.4 Types I, II, III and IV (Noncombustible) Construction:

Cosentino Dekton Wall panels have been tested in accordance with ASTM E136 and comply with the 2021 IBC Section 703.3 [2018, 2015 and 2012 IBC Section 703.5 (2009 IBC Section 703.4)]. The panels are classified as noncombustible building construction material and may be installed on buildings of Types I, II, III and IV construction. When the wall panels are used on exterior wall assemblies and the wall assembly consists of a combustible water-resistive barrier, the building height is limited to 40 feet (12.2 m) above grade, unless used with a combustible water-resistive barrier complying with Exception 2 of the 2021 and 2018 IBC Section 1402.5 (2015 IBC Section 1403.5).

5.0 CONDITIONS OF USE

The Cosentino Dekton Wall Panel Cladding System described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions and applicable code. If there is a conflict between the manufacturers' published installation instructions and this report, this report governs.
- 5.2 The underlying substructure and wall must be adequate to resist the positive and negative transverse wind loads shown in Table 1.
- 5.3 Drawings, design details and calculations verifying compliance with this report and adequacy of the connections to the substrate must be submitted to the code official for approval. The drawings and calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.4 The Cosentino Dekton Wall Panel Cladding System must be installed by qualified installers recognized by Cosentino North America.
- 5.5 The maximum allowable wind pressures for the Cosentino Dekton Wall Panel Cladding System are shown in Table 1. The capacity of the supporting wall and substrate, and the capacity of the connections used to attach the system to the wall, must be equal to or exceed the design wind pressure and gravity loads.
- 5.6 A water-resistive barrier complying with 2021 and 2018 IBC Section 1402.2 (2015, 2012 and 2009 IBC Section 1403.2) must be installed behind the wall panel system.
- 5.7 When installed on interior walls as a Class A interior finish, the system must be installed over a substrate having a Class A finish.
- 5.8 Use of the Cosentino Dekton Wall Panels on exterior walls of Types I, II, III or IV construction which contain combustible materials or are greater than 40 feet in height (12.2 m) is outside the scope of this report except when installed in accordance with Section 4.4.
- 5.9 The panels are manufactured in Cantoria, Spain under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Façade and Wall Cladding Systems with Porcelain, Ceramic or Terra Cotta Panels (AC504), dated October 2018 (editorially revised March 2021).

7.0 IDENTIFICATION

- 7.1 The Cosentino Dekton Wall Panels are labeled with the manufacturer's name and address (Cosentino NA), the product name (Dekton), the thickness, color and finish, the batch number, and the evaluation report number (ESR-3721).
- 7.2 The report holder's contact information is the following:

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TABLE 1—MAXIMUM SPACING AND ALLOWABLE TRANSVERSE LOAD

MAXIMUM HORIZONTAL PROFILE SPACING (inches)	KEIL ANCHOR ATTACHMENT		ALLOWABLE TRANSVERSE LOAD (psf)	
	Horizontal Spacing (inches)	Vertical Spacing (inches)	Positive	Negative
26	26	40	70	70

For SI: 1 inch = 25.4 mm; 1 psf = 4788 Pa

¹Maximum transverse wind load capacity determined using ASTM E330 testing procedure. Design of the attachment to the building structure must be in accordance with Section 4.2 of this report.

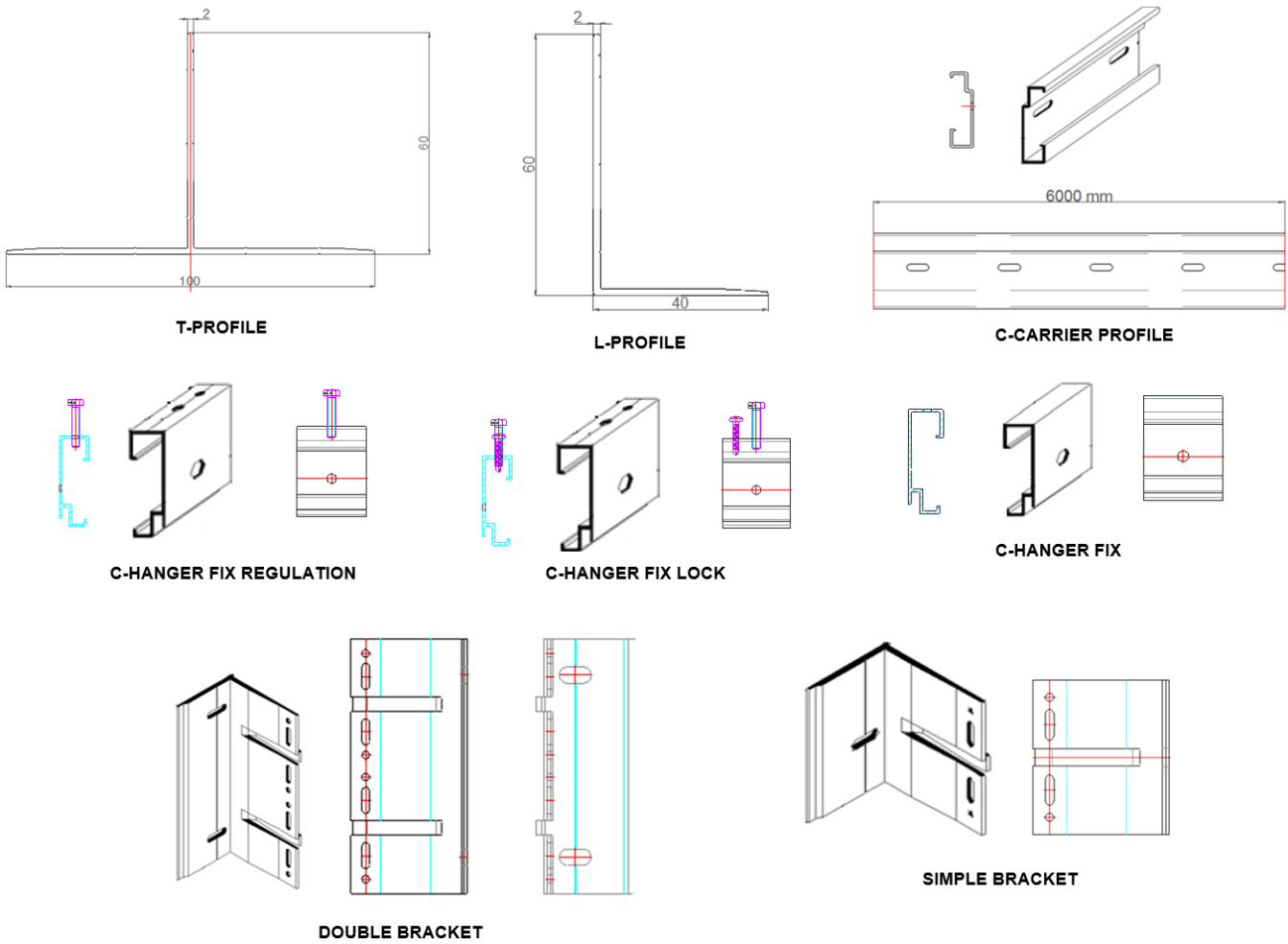


FIGURE 1—STANDARD SYSTEM COMPONENTS

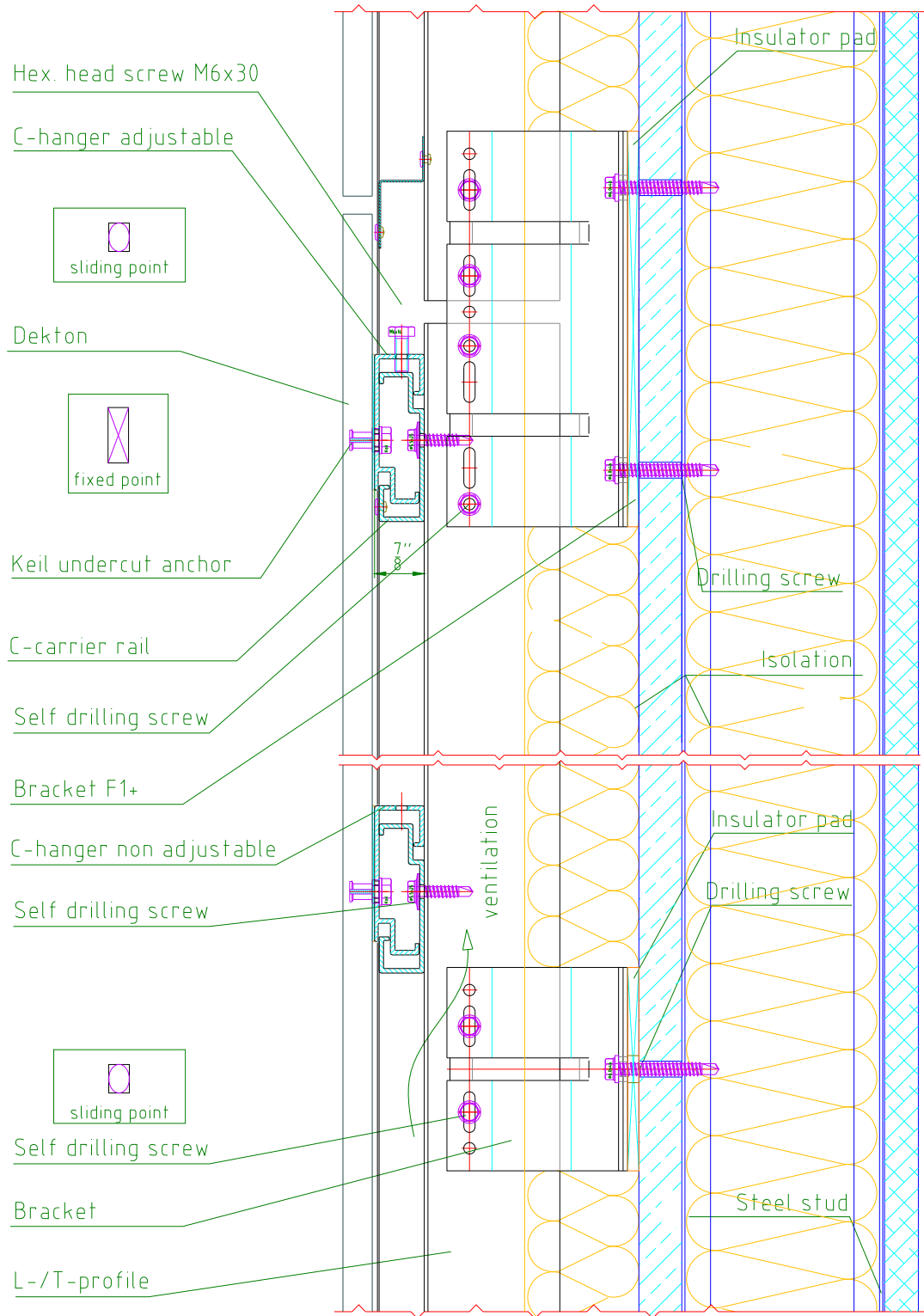


FIGURE 2—TYPICAL VERTICAL WALL SECTION

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1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Cosentino Dekton Wall Panel Cladding System, described in ICC-ES evaluation report ESR-3721, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

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

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Cosentino Dekton Wall Panel Cladding System, described in Sections 2.0 through 7.0 of the evaluation report ESR-3721, complies with CBC Section 703.5 and CBC Chapter 14, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 14 and 16, as applicable.

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.

2.2 CRC:

The Cosentino Dekton Wall Panel Cladding System, described in Sections 2.0 through 7.0 of the evaluation report ESR-3721, complies with CRC Chapter 7, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued July 2022.

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Applicable code editions:

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Cosentino Dekton Wall Panel Cladding System, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-3721, complies with the *Florida Building Code—Building* or the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-3721 for the 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable.

Use of the Cosentino Dekton Wall Panel Cladding System for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential* has not been evaluated and is outside the scope of this supplemental report.

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).

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