

# Technical Data Sheet

## CERA CLAD Solid Core Panel and Corner Products



Solid Core Texture: Contemporary Smooth

### Product Description

CERA CLAD is a fiber cement panel rain screen system manufactured by KMEW Co., Ltd. All panel products meet or exceed the standards of ASTM 1186 and ICC-ES AC-90. Solid Core products are Type A, Grade II as defined by ASTM 1186.

ICC-ESR #1627, CCMC Report #13084-R, LARR #26093

### Panel and Corner Specifications

Panels		Profile
Property		
Dimensions	W: 455mm ± 0.6mm L: 3030mm ± 1.0mm T: 16mm ± 0.5 mm	
Coverage	1.38 m <sup>2</sup> (15 ft <sup>2</sup> )	
Weight	60 lbs	

Horizontal Preformed Corner		Profile
Property		
Dimensions	Reveal: 91mm (outer) 75mm ± 0.5mm (inner) L: 455mm ± 0.6mm T: 16mm ± 0.5 mm	
Coverage	0.08 m <sup>2</sup> (0.89 ft <sup>2</sup> )	
Weight	3.3 lbs	

Vertical Preformed Corner		Profile
Property		
Dimensions	Reveal: 91mm (outer) 75mm ± 0.5mm (inner) L: 3030mm ± 1.0mm T: 16mm ± 0.5 mm	
Coverage	0.55 m <sup>2</sup> (5.9 ft <sup>2</sup> )	
Weight	22.4 lbs	

### Fire and Combustibility

CERA CLAD is a **non-combustible** product in accordance with **ASTM E 136**, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C and **CAN/ULC-S114**, Standard Method of Test for Determination of Non-Combustibility in Building Materials.

CERA CLAD has been tested per **ASTM E 84**, Standard Test Method for the Surface Burning Characteristics of Building Products. CERA CLAD panel products are rated **Class A**, with a **Smoke Development Classification of 0**, **Flame Spread Classification of 0**.

CERA CLAD may be used as part of a **one-hour fire-resistance rated wall assembly** in accordance with testing per **ASTM E 119**. Please consult ESR-1627 for a description of 1 hr rated assemblies.

CERA CLAD has met the conditions of **NFPA 268**, Test Method for Determining Ignitability of Exterior Wall Assemblies.

## Physical Properties

Testing of CERACLAD solid core per ICC-ES AC 90: Acceptance Criteria for Fiber Cement Siding Used as Exterior Wall Siding and ASTM C 1186: Standard Specification for Flat Fiber Cement Sheets

Property	Test Result	Requirement	Pass/Fail
Dimensional Tolerances: Length, in Width, in Squareness, in Thickness, in	0.00 0.02 0.02 0.00	±0.25 ±0.13 ±0.19 ±0.05	Pass
Flexural Strength (longitudinal direction) Dry (psi) Wet (psi) Freeze/Thaw, % Strength retention Warm Water, % Strength retention	1479 1083 98 115	1450 1015 >80 No Requirement	Pass Pass Pass No Requirement
Density, lb/ft <sup>3</sup>	67.7	No Requirement	No Requirement
Moisture Movement, % 30%-90% relative humidity (MX & XD Average)	0.14	No Requirement	No Requirement
Water Absorption, % by mass	39.0	No Requirement	No Requirement
Water Tightness	No drop formation	No drop formation	Pass
Warm Water Resistance	No apparent changes	No visible cracks or structural alterations	Pass
Heat/Rain Resistance	No apparent changes	No visible cracks or structural alterations	Pass

## Transverse Loading

The table below reflects several specific wall configurations which are not meant to be completely representative of every installation scenario. Please consult an engineer to ensure that CERACLAD is an appropriate choice for your unique project conditions.

Transverse Load Testing per ASTM E 330					
Panel Direction	Frame Type	Stud Spacing	Sheathing	Mean Failure Load (psf)	Method of Failure
Horizontal	2 x 6 wood	16" OC	½" plywood	<b>77</b>	Panel Breakage at Clip
Horizontal	2 x 4 steel, 18ga	16" OC	None	<b>70</b>	Panel Breakage at Clip
Vertical	2 x 6 wood	16" OC	½" plywood	<b>65</b>	Panel Breakage at Clip
Vertical	2 x 4 steel, 18ga	16" OC	None	<b>63.3</b>	Panel Breakage at Clip

## Green Statistics

<b>Minimum Recycled Content:</b>	<b>44.5%</b>
Pre-Consumer:	30.3%
Post-Consumer:	14.2%

Thermal Properties	
R Value (Resistance)	0.50
U Value (Conductivity)	1.98

## Impact Testing

Impact testing per CCMC evaluation report criteria for Report 13084-R

Impact Body Used	Dynamic Mass (kg)	Energy (N-m)	Observation	Result
<b>For Safety Impact</b>				
Large Soft	50	100	No penetrations, dislodging or structural damage	Pass
Hard	1	10	No penetrations, dislodging or structural damage	Pass
<b>For Retention of Performance Impact</b>				
Large Soft	50	34	No loss of functional or appearance characteristics	Pass
Small Soft	3	60	No loss of functional or appearance characteristics	Pass
Hard	1	10	No loss of functional or appearance characteristics	Pass

## Warranty

**50 Year Limited Warranty:** The Product shall: not incur structural cracking, rot or delaminate under normal use and wear and shall resist damage caused by termites for a period of 50 years under normal use.

**20 Year Limited Warranty:** The Ceramic Product finish shall (A) retain its color and luster (meaning color fade shall not exceed color No. 1-2 and E= 9.6 in accordance with ISO 105-A02:1990, Test for color fastness- A02: Grey scale for assessing change in color) for color integrity, and shall not significantly (B) peel, (C) incur structural cracking, or (D) chip, for a period of 20 years under normal use.

**15 Year Limited Warranty:** The CREATIV™ Product finish shall not significantly (A) peel, (B) incur structural cracking, or (C) chip, for a period of 15 years under normal use.

\* Please see full warranty for further details on warranty coverage, limitations and exclusions