

## **EVALUATION REPORT**

Number: 382

SACRAMENTO STUCCO CO., INC. 1550 Parkway Boulevard Sacramento, California 95691 (916) 372-7442 www. westernblended.com

Originally Issued: 02/20/2015

# WESTERN 1-KOTE EXTERIOR STUCCO SYSTEM

## ADDITIONAL COMPANIES AND PRODUCT NAMES RECOGNIZED IN THIS REPORT:

- ASH GROVE PACKAGING, Ash Grove 10809 Executive Center Drive, Suite 321 Little Rock, Arkansas 72211 (501) 224-3372 ASH GROVE<sup>®</sup> 1-Kote Premix Stucco System
- DRYVIT SYSTEMS, INC.
   One Energy Way
   West Warwick, Rhode Island 02852
   (401) 822-4100
   Dryvit Commercial Cement Plaster (CCP)
   System
- STO CORP.
   3800 Camp Creek Parkway SW Building 1400, Suite 120 Atlanta, Georgia 30331 (800) 221-2397 StoPowerwall<sup>®</sup> Stucco System

CSI Section: 09 25 00 Other Plastering

#### 1.0 RECOGNITION

Western 1-Kote Exterior Stucco Systems recognized in this report have been evaluated for use as exterior wall coverings in compliance with Chapters 14 and 25 of the IBC and Chapter 7 of the IRC. The systems have been evaluated for wind resistance, fire resistance, durability, and installation on walls required to be of Types I, II, III, IV, or V construction. Western 1-Kote Systems evaluated in this report are satisfactory alternatives to the cement plaster stucco wall coverings prescribed in the following codes and regulations:

- 2021, 2018, 2015, 2012, and 2009 International Building Code (IBC)
- 2021, 2018, 2015, 2012, and 2009 International Residential Code (IRC)
- 2022 and 2019 California Building Code (CBC) supplement attached
- 2022 and 2019 California Residential Code (CRC) supplement attached
- ICC-ES AC11

#### 2.0 LIMITATIONS

Revised: 07/18/2023

Use of the Western 1-Kote Systems recognized in this report is subject to the following limitations:

Valid Through: 02/28/2024

- **2.1** The stucco systems shall be installed in accordance with this report, the code (IBC or IRC), and the manufacturer's published installation instructions. In the event of a conflict, this report governs.
- **2.2** All inspections outlined in IBC Section 110 or IRC Section R109 and required by the building official, shall be completed.
- **2.3** Wall bracing shall be provided in accordance with the IBC or IRC.
- **2.4** Western 1-Kote Stucco shall be moist-cured for a minimum of 48 hours and in accordance with the code and the manufacturer's instructions.
- **2.5** Where foam plastic insulation is used, a thermal barrier complying with IBC Section 2603.4 or IRC Section R316, as applicable, is required.
- **2.6** Where foam plastic insulation is used in areas where the probability of termite infestation is very heavy, installations shall comply with 2021, 2018, 2015, and 2009 IBC Section 2603.8 (2012 IBC Section 2603.9) or IRC Section R318.4, as applicable.
- **2.7** Under the 2021 IBC, the installation of water-resistive barriers shall comply with IBC Sections 2510.6.1 and 2510.6.2, as applicable. When compliance with Item No.2 of Section 2510.6.2 of the 2021 IBC is desired, a drainage test in accordance with ASTM E2273 or Annex A2 of ASTM E2925 shall be submitted to the building official for approval.
- **2.8** Where applied over wood-based sheathing, installation shall include a water-resistive barrier conforming with IBC Section 2510.6 or IRC Section R703.7.3, as applicable, and under the 2018 IBC, where installed in Climate Zone 1A, 2A, or 3A, a ventilated air space shall be provided between the stucco and the water-resistive barrier.
- **2.9** The Western 1-Kote Exterior Stucco Systems recognized in this report are produced in West Sacramento, CA.

#### 3.0 PRODUCT USE

Western 1-Kote Exterior Stucco Systems described in this report are recognized for use as exterior or interior wall coverings. These systems are used as alternatives (AC11) to code prescribed conventional stucco systems - first and second (scratch and brown) coats - complying with ASTM C926, and may be used as conventional stucco systems in accordance with Sections 2510.3 and 2512.1 of the IBC.



EVALUATION REPORT Number: 382

Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

When applied as described in Section 3.3.2 of this report, Western 1-Kote Stucco is recognized for use as a component of one-hour fire-resistance-rated wall assemblies.

Western 1-Kote Exterior Stucco Systems are recognized for use in Type V construction in accordance with the prescriptive limitations of the code. When applied in accordance with Section 3.3.3 of this report, Western 1-Kote Stucco is also recognized for use applied on exterior walls of buildings of Types I, II, III, or IV construction of any height, in accordance with IBC Section 2603.5.

- **3.1 Installation:** The stucco systems described in this report, and as depicted in Figures 2 through 14, shall be installed in accordance with the code, ASTM C1063, and the manufacturer's published installation instructions, as applicable. The installation instructions shall be provided to the building official upon request. The systems shall be installed by qualified contractors recognized by Sacramento Stucco, Ash Grove Packaging, Dryvit Systems, or Sto Corp., as applicable. The manufacturer shall maintain a list of qualified contractors and present this list to the building official upon request. An installation card such as that shown in Figure 15 of this report, or containing equivalent information, shall be completed by the installation contractor and presented to the building official prior to the final inspection.
- **3.2 Substrates:** Substrates shall be walls of concrete, masonry, insulated concrete forms (ICF), or light-framing covered with gypsum board, fiberboard, wood structural panel wall sheathing, foam plastic insulation, mineral wool insulation board, or similar substrates. The light-framed walls shall be of minimum 0.5-specific-gravity wood studs or minimum 20-gauge [0.035 inch (0.889 mm)] steel studs spaced at 24 inches (610 mm) on center, maximum. The wall shall be prepared for the application of stucco in accordance with Section 3.2.3 of this report.
- 3.2.1 Foam Plastic Boards: Expanded or extruded polystyrene foam plastic insulation boards may be used as components of wall substrates receiving Western 1-Kote Exterior Stucco. Table 1 of this report specifies the minimum thickness for foam plastic insulation installed over sheathing or open studs. Where used, foam plastic insulation shall be installed to the exterior of the water-resistive barrier. Lapped joints between the boards shall be oriented so that water is diverted to the exterior. Where Dow Styrofoam Tongue and Groove XPS is installed in accordance with ICC ESR-2142, the water-resistive barrier shall be fastened directly to the framing. All foam plastic insulation shall have flame-spread and smoke-developed indices complying with Section 2603.5.4 of the IBC or Section R316.3 of the IRC, as applicable. Verification of compliance of the foam plastic boards to Section 2603 of the IBC or Section R316 of the IRC is beyond the scope of this report.
- **3.2.1.1 Expanded Polystyrene (EPS):** EPS foam plastic insulation boards used as backer over open framing shall be

Type II in accordance with ASTM C578, with a minimum nominal density of 1.5 pcf (24 kg/m<sup>3</sup>).

- **3.2.1.2 Extruded Polystyrene (XPS):** XPS foam plastic insulation boards used as backer over open framing shall be Type IV or Type V in accordance with ASTM C578, with a minimum nominal density of 1.5 pcf (24 kg/m<sup>3</sup>).
- **3.2.1.3 Mineral Wool Insulation Board:** Unfaced mineral wool insulation boards shall be Type IVA or IVB, with a minimum thickness of 1 inch (25.4 mm), a minimum 8 pcf (128 kg/m³) density, qualified as non-combustible, and labeled in accordance with ESR-3773.
- **3.2.1.4 Fastening:** Where the foam backing boards are installed over wood framing, the boards shall be fastened using No. 11-gauge roofing nails or No. 16-gauge staples with <sup>7</sup>/<sub>16</sub>-inch-wide (11.1 mm) crowns complying with ASTM F1667. The fasteners shall penetrate no less than 1 inch (25.4 mm) into the wood framing. Where the foam boards are installed over steel framing, the boards shall be fastened using No.6, Type S screws that shall penetrate no less than <sup>1</sup>/<sub>4</sub> inch (6.35 mm) through the steel flanges. Fasteners shall be corrosion resistant and fastener spacing shall be a maximum of 6 inches (152 mm) on center.

TABLE 1 - FOAM PLASTIC BOARDS

Backing	Configuration
Occupation in a	1.0- to 1.5-inch-thick foam plastic boards with $^3/_8$ -inch tongue and groove horizontal joints as shown in Figure 1 of this report $^2$
Open framing	1-inch-thick, 2 ft by 8 ft Dow StyroFoam XPS with 4- sided tongue and groove edges installed according to ICC ESR-2142.
Wood structural panel (WSP) sheathing	minimum 0.5-inch-thick, 1.0 pcf density EPS insulation <sup>2</sup> with vertical drainage grooves <sup>1</sup> on the back face of the EPS board as with solid sheathing.
WSP sheathing where foam plastic forms part of the water-resistive barrier	minimum 1.0-inch-thick foam plastic insulation with $^3/_8$ -inch tongue and groove horizontal joints as shown in Figure 1 of this report
Solid sheathing	minimum 0.5-inch-thick, 1.0 pcf density EPS insulation <sup>2</sup> with vertical drainage grooves <sup>1</sup> on the back face of the EPS board

SI conversions: 1 inch = 25.4 mm; 1 foot = 305 mm; 1 pcf = 16 kg/m<sup>3</sup>

- The framing is maximum 24 inches on center
- The foam is a minimum 1-inch-thick ASTM C578 Type II EPS having a nominal density of 1.5 pcf and 15 psi compressive strength
- The foam board is fastened per Section 3.2.1.4 of this report
- The joints are a maximum <sup>1</sup>/<sub>8</sub>-inch-wide and closed on the exterior side using a minimum 2<sup>3</sup>/<sub>8</sub>-inch-wide fiberglass mesh tape
- Lath is installed per Section 3.2.3.6 of this report.

 $<sup>^1</sup>$  Grooves are min.  $^1/_4$ -inch-wide x  $^1/_8$ -inch-deep, spaced 12 inches on center. As an alternative to the vertical drainage grooves, the flat-faced EPS foam plastic insulation board may be installed in accordance with the EPS board evaluation report, and may be absent of tongue and grooves, drainage grooves, and dimples over two layers of Henry Super Jumbo Tex  $60^{\circ}$  Minute or other water-resistive barriers that comply with Sections 3.2.3.2 and 3.2.3.2.2 of this report.

<sup>&</sup>lt;sup>2</sup> The foam plastic board may have square-cut horizontal edges provided the foam board is not required to perform as a WRB layer, and:



- **3.2.1.4.1** Where mineral wool insulation boards are installed, the methods for fastening described below may be used for installation. For fastener penetration requirements, Section 3.2.1.4 of this report shall apply.
  - i) For insulation boards up to a maximum of  $1\frac{1}{2}$  inches (38.1 mm), corrosion-resistant, No. 16-gauge staples with a  $\frac{7}{16}$ -inch-thick (11.1 mm) wide crown, penetrating the combined thickness of sheathing and studs by at least 1 inch, and spaced at a maximum of 6 inches (152 mm) on center.
  - ii) Three-inch diameter TruFast Grip-Lok Hurricane washers with Grip-Deck HiLo screws. The fasteners manufacturer's installation instructions shall be followed as the diameter of the screws varies with length. Fasteners shall be spaced at a maximum of 6 inches (152 mm) on center.
  - iii) Any equivalent fastening method employing noncombustible washers and fasteners qualifies as an alternative, subject to approval by the building official. Verification of compliance is beyond the scope of this report.
- **3.2.2 Rigid Backing:** Rigid backings include gypsum board, fiberboard, and wood structural panel sheathing. The water-resistive barrier shall be installed over the exterior of rigid backings.
- 3.2.2.1 Gypsum Board: Gypsum boards shall be protected from the weather in accordance with IBC Section 2508.2 and ASTM C1280. The boards shall be a minimum ½-inch-thick (12.7 mm) and shall comply with Section 2506 of the IBC or Sections R602.3 and R702 of the IRC, as applicable. Permitted types include water-resistant gypsum backing board and gypsum sheathing board complying with ASTM C1396, and glass mat gypsum substrate complying with ASTM C1396 is permitted on the interior side of walls where specified in this report. Refer to the gypsum board evaluation report or manufacturer's literature for limitations and use recommendations.
- **3.2.2.2 Fiberboard:** Cellulosic fiber insulating board (fiberboard) shall comply with Section 2303.1.6 of the 2021, 2018, and 2015 IBC (Section 2303.1.5 of the 2012 and 2009 IBC) and shall be Type IV, Grade 1 or Grade 2 wall sheathing as set forth in ASTM C208, minimum ½-inch-thick (12.7 mm). Refer to the fiberboard evaluation report or manufacturer's literature for limitations and use recommendations.
- **3.2.2.3** Wood Structural Panel Sheathing: Wood structural panel (WSP) sheathing shall comply with Sections 2303.1.5 of the 2021, 2018, and 2015 IBC (2303.1.4 of the 2012 and 2009 IBC), Section 2304.6.1 and Table 2304.6.1 of the IBC or Section R602.3 and Table R602.3(3) of the IRC, as applicable.

**3.2.2.4** Concrete or Masonry Substrates: Application of the stucco directly to concrete or masonry is permitted in accordance with ASTM C926 or IRC Section R703.6. No water-repellent coatings such as bituminous coatings or other foreign matter shall be present on the substrate. The substrate shall be sufficiently moist to prevent it from drawing the water needed for hydration from the stucco paste. Where required to remove foreign matter, surfaces shall be cleaned using acid solutions, solvents, or detergents and then washed with clean water. Smooth surfaces shall be roughened, and an approved bonding agent shall be applied to block, concrete, or masonry surfaces, as appropriate.

Number: 382

- **3.2.2.5 Insulated Concrete Forms (ICF):** The ICF consists of expanded polystyrene (EPS) panels connected by injection-molded polypropylene crossties. The crossties that utilize the interlocking mechanism to the two layers of insulated forming material may be plastic or metal. The stucco system shall be applied over ICF forms using woven wire or metal lath in accordance with the laths manufacturer's installation instructions. The ICF connection, fastener spacing, and accessories for fastening woven wire or metal lath to the stucco are outside the scope of this report and shall be designed by a registered design professional and submitted to the building official for approval. The maximum fastener spacing shall comply with Section 3.2.3.6 of this report. The stucco shall be installed in accordance with Section 3.2.5 of this report.
- **3.2.3 Substrate Preparation:** The substrates shall be prepared for the application of stucco in accordance with this section (Section 3.2.3) of this report.
- **3.2.3.1 Weep Screed:** Weep screeds shall be installed at the base of the assembly. Weep screeds shall comply with Section 2512.1.2 of the IBC or Section R703.7.2.1 of the 2021, 2018, and 2015 IRC (R703.6.2.1 of the 2012 and 2009 IRC), and ASTM C1063.
- **3.2.3.2 Water-Resistive Barrier:** Water-resistive barriers (WRB) shall be installed in accordance with 2021 and 2018 IBC Sections 1403.2 and 2510.6 (2015, 2012, and 2009 IBC Sections 1404.2 and 2510.6), IRC Section R703.2, or the WRB evaluation report, as applicable, to prevent water from entering the substrate. For the installation of WRBs under the 2021 IBC, Section 2.7 of this report provides additional provisions.
- **3.2.3.2.1 Wood-based Sheathing:** For installation over wood-based sheathing (cellulosic fiber insulating board or WSP sheathing), the water-resistive barrier shall be installed in accordance with Section 2510.6 of the IBC or Section R703.6.3 of the IRC, as applicable. The barrier must be a minimum of two layers of Grade D Kraft paper, or one layer of polystyrene (EPS or XPS) foam plastic insulation board described in Sections 3.2.1.1 and 3.2.1.2 of this report, applied over one layer of 60-minute Grade D building paper may be used as a WRB. Where mineral wool insulation board is used and there is solid sheathing, the barrier shall be one



layer of 60-minute Grade D building paper over <sup>7</sup>/<sub>16</sub>-inch-thick OSB or plywood sheathing. For installations without wood-based sheathing, the water-resistive barrier shall be a minimum of one layer.

**3.2.3.2.2 Types I Through IV Construction:** In Types I through IV construction of buildings of any height in accordance with Tables 6 and 7 of this report, Henry Super Jumbo Tex 60 Minute or another water-resistive barrier that is shown by ASTM E1354 testing (at 50kW/m² min. heat flux) and analysis to be equivalent in flammability, shall be used.

In prescriptive assemblies of construction Types I through IV construction, any WRB meeting the maximum combustion, heat release, and surface burning criteria contained in ASTM E1354 and ASTM E84, as described in IBC Section 1402.5, may be used provided the WRB is the assembly's only combustible component. When compliance with Item No.2 in Section 1402.5 of the 2021 IBC is desired, the WRB shall be tested for the flame-spread and smoke-developed indices in accordance with ASTM E84 with the test specimen and mounting in accordance with ASTM E2404.

- 3.2.3.3 Keene Building Products Rainscreens: Keene Driwall Rainscreens, DWRS 10mm or DWRS 020, with Keene Easy-Fur, may be used in assemblies with Western 1-Kote systems. The Keene Driwall Rainscreens may be installed in Construction Types I, II, III, and IV over approved water resistive barriers and shall be installed horizontally and against the exterior wall with fabric side out, and mechanically fastened as noted in Section 3.2.1.3 of this report.
- **3.2.3.4** Casing Beads and Corner Beads: Casing and corner beads shall be installed to provide a finish at the boundaries of the assemblies in accordance with ASTM C1063. Areas of backings not covered by plaster shall be covered with galvanized steel casing beads.
- **3.2.3.5 Flashing:** Flashing shall be installed to properly divert water in accordance with the manufacturer's instructions and the applicable code. Flashing shall comply with Section 1404.4 of the 2021 and 2018 IBC, Section 1405.4 of the 2015, 2012, and 2009 IBC, Section R703.4 of the 2021, 2018, and 2015 IRC, or Section R703.8 of the 2012 and 2009 IRC, as applicable. Membrane flashing shall be self-adhering flexible rubberized asphalt and polyethylene, minimum 0.030 inch (0.762 mm) thick.
- **3.2.3.6 Metal or Wire Fabric Lath:** Lath shall be regular or self-furring wire fabric or metal lath complying with the code and ICC-ES AC191, as applicable. The lath shall be corrosion-resistant and shall be the furred or self-furring type. Wire fabric lath shall be minimum No. 20 gauge [0.035 inch (0.889 mm)] by 1-inch (25.4 mm), galvanized steel, wovenwire fabric. The lath shall be installed in accordance with IBC Sections 2510 through 2512 or IRC Section R703, and ASTM C1063, as applicable. Lath fasteners shall be

corrosion resistant and shall penetrate through foam plastic insulation and sheathing and shall be embedded directly into the framing to transfer the loads to structural load-bearing members. Refer to the lath evaluation report or the lath manufacturer's literature for limitations and recommendations. The self-furring lath shall be furred in accordance with IBC Section 2510.3, IRC 2021, 2018, and 2015 Section R703.7, or 2012 and 2009 IRC Section R703.6, as applicable. Furred 20-gauge [0.035 inch (0.889 mm)] lath shall be used with the Western 1-Kote products up to ½ inch (12.7 mm) thick. For coating thicknesses greater than ½ inch (12.7 mm), furred 17-gauge [0.056 inch (1.42 mm)] wire fabric lath shall be used. Furring crimps shall be provided at maximum 6-inch (152 mm) intervals each way. The crimps shall fur the body of the lath a minimum of ½ inch (3.18 mm) from the substrate after installation. Unfurred lath is permitted over unbacked polystyrene boards in accordance with AC11.

Number: 382

- **3.2.4 Plaster Mixing:** The stucco blends shall be mixed with suitable sand and clean, potable water in accordance with Section 4.0 of this report and the manufacturer's mixing instructions.
- **3.2.5 Plaster Application:** Western 1-Kote Exterior Stucco shall be applied in one coat, minimum  $^{3}/_{8}$  inch (9.53 mm) thick without cold joints as specified in the manufacturer's installation instructions. When used in construction types I through IV assemblies incorporating foam plastic insulation on buildings over 40 feet in height, Western 1-Kote Exterior Stucco shall be applied in one coat, minimum  $^{1}/_{2}$  inch thick, in accordance with Table 6 of this report. The ambient air temperature range for the application of the plaster shall be  $40^{\circ}$ F to  $110^{\circ}$  F (4.4°C to  $43^{\circ}$ C). The stucco shall be hardfloated to promote densification. Finish coats may be applied in accordance with the finish coat application instructions after the base coat has fully cured.
- **3.2.6 Finish Coat:** Acceptable finish coats for Western 1-Kote and the products manufactured by the additional listees in this report as well as exterior finishes from Master Wall Inc., include Western Blended Products (WBP) Premium Acrylic Finishes (PAF), WBP Exterior Stucco Finishes, WBP Elastomeric Paints, and WBP PAF Specialty Products. Finish coats may be applied in accordance with the finish coat application instructions after the base coat fully cures.

#### 3.2.7 Miscellaneous:

- **3.2.7.1** Sills: Window sills or pop-outs may be plastered where the sill is up to 6 inches (152 mm) wide. Wider sills require lumber or WSP fastened to framing in accordance with Section 2304.10.2 of the 2021 IBC, Section 2304.10.1 of the 2018 and 2015 IBC (2304.9.1 of the 2012 or 2009 IBC), or IRC Section R602.3.
- **3.2.7.2 Control and Expansion Joints:** Control and expansion joints shall be provided as specified by the



building designer, the installation contractor, or the stucco manufacturer, as applicable.

- **3.2.7.3 Caulking:** Joints formed where the boards abut dissimilar materials such as at windows, door, and other penetrations shall be filled with caulking. Caulking shall be acrylic latex complying with ASTM C834 or polysulfide, polyurethane, polyurethane modified, or silyl-terminated polyether elastomeric sealant complying with ASTM C920.
- **3.2.7.4 Vapor Retarder:** Vapor retarders shall comply with Section 1404.3 of the IBC or Section R702.7 of the IRC (Section R601.3 and R318.1 of the 2009 IRC), as applicable.
- **3.2.7.5 Soffits:** Application of plaster to soffits requires metal lath complying with Section 3.2.3.6 in lieu of fabric wire lath per ASTM C1063. Fasteners shall penetrate into the framing.
- **3.2.7.6 Product Storage:** The bags shall be kept indoors or, if stored outdoors, shall be stored off the ground and adequately covered to keep the product dry.

#### 3.3 Design

- **3.3.1** Wind Load: The maximum allowable wind pressures, for the stucco applied over various substrates, are given in Table 3 of this report. The backing and fastening of the backing, including the lath on which the stucco is applied, shall be capable of withstanding the design wind loads, and installation shall comply with the applicable code and this report.
- 3.3.2 Fire-resistance-rated Construction: Fire-resistancerated (FRR) assemblies recognized for use with Western 1-Kote Stucco are described in Table 5 of this report. Assembly No.1 is based on GA File No. WP8105, referenced in The Gypsum Association Fire-resistance and Sound Control Design Manual (GA 600). Assembly No. 2 through Assembly No. 5 are recognized as meeting ASTM E119 and UL 263 for fire-resistance from both sides based on successful ASTM E119 testing for a one-hour fire-resistancerating. Use of the tabulated FRR assemblies in Types I through V construction shall be in accordance with the provisions of Chapter 6 of the IBC. Use of Western 1-Kote Exterior Stucco Systems in 2-hour fire-resistant construction is outside the scope of this evaluation report. Approval of additional FRR assemblies shall be based on Section 703 of the IBC.

## 3.3.3 Exterior Walls on Buildings of Types I, II, III, or IV Construction

**3.3.3.1 General:** Exterior wall assemblies incorporating Western 1-Kote Stucco and constructed entirely of noncombustible components or concrete/masonry walls with directly applied stucco in accordance with Section 3.2.2.4 of this report, are permitted to be used in Types I through IV construction on buildings of any height allowed in IBC Section 504. These assemblies may include a water-resistive barrier as its only combustible component, provided the

WRB does not exceed the maximum combustion, heat release, and surface burning criteria contained in ASTM E1354 and ASTM E84 as described in Sections 1402.5 and 2603.5 of the 2021, 2018, 2015, and 2012 IBC. Use of these WRBs shall be approved by the building official based on reports of WRB testing in accordance with ASTM E1354 and ASTM E84. When compliance with Item No.2 in Section 1402.5 of the 2021 IBC is desired, the WRB shall be tested for the flame-spread and smoke-developed indices in accordance with ASTM E84 with the test specimen and mounting in accordance with ASTM E2404. Additional specifications concerning stucco thickness and use of WRBs in Types I through IV construction are found in Sections 3.2.5 and 3.2.3.2 of this report, respectively.

Number: 382

**3.3.3.2 Assemblies Based on NFPA 285 Testing:** Tables 6 and 7 of this report detail exterior wall assemblies containing non-combustible components and combustible alternatives recognized for use on buildings of Types I through IV construction of any height based on NFPA 285 testing and analysis. The use of components other than the allowable alternatives described in the tables is outside the scope of this report.

#### 4.0 PRODUCT DESCRIPTION

- **4.1 General:** Western 1-Kote is a factory-prepared, dryblended, fiber-reinforced, modified Portland cement product that, when mixed with the proper types and amounts of sand and water, forms a stucco plaster paste. The stucco meets ASTM C150, C595, C1157, and C926. The paste is applied in one coat, a minimum <sup>3</sup>/<sub>8</sub>-inch-thick (9.53 mm), as an alternative to the code-prescribed scratch and brown coats in conventional stucco systems. The Western 1-Kote Exterior Stucco Systems comply with 2021, 2018, 2015, 2012, and 2009 IBC Chapters 14 and 25, IRC Chapter 7, and ICC AC11 as alternative exterior wall coverings. The systems also comply with Chapter 8 of the IBC and Chapter 7 of the IRC as interior wall coverings. Western 1-Kote products are noncombustible materials in accordance with Section 703.3 of the 2021 IBC, and Section 703.5 of the 2018, 2015, 2012, and 2009 IBC.
- **4.2 Formulations:** Western 1-Kote products are manufactured in two formulation classes: Classic Formula (CL) and Advanced Formula (AF). Either formulation may be used interchangeably to mix with the Gray or Premium Gray, Concentrate, or Sanded Blends. The formulation class is provided on the packaging.
- **4.3 Western 1-Kote Blends:** Western 1-Kote is available in four blends to provide mixing options for the user. Gray Concentrate and Gray Premium Concentrate require sand and water to form the plaster paste. Sanded Gray and Premium Sanded Gray require only water. The Premium blends are faster setting, have lower shrinkage, and achieve higher compressive strengths. Western 1-Kote blends are packaged in 80 lb (36.3 kg) bags.

Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

4.3.1 Grav Concentrate and Grav **Premium** Concentrate: The Western 1-Kote Concentrates shall be mixed with suitable sand and clean, potable water in accordance with the manufacturer's instructions. Each bag of Classic Formula Gray or Premium Concentrate shall be mixed with approximately 200 pounds (90.7 kg) of loose, damp, plaster sand. Each bag of Advanced Formula Gray or Concentrate shall be mixed with approximately 250 pounds (113.4 kg) of loose, damp, plaster sand. Each shall be mixed with approximately 5.64 gallons (21.4 L) of water, as required for the conditions at the time of installation. The concentrate, sand, and water shall be mixed for a minimum of five minutes.

TABLE 2 - Sand Gradation

U.S. Standard	Weight Percent of Aggregate Retained Percent					
Sieve	Min. Max.					
No. 4	_	0				
No. 8	0	10				
No. 16	10	40				
No. 30	30	65				
No. 50	70	90				
No. 100	95	100				

The stucco sand shall be clean and free of deleterious amounts of loam, clay, silt, soluble salts, and organic matter; and shall comply with ASTM C144, ASTM C897, or shall be graded in accordance with Table 2 of this report.

**4.3.2** Sanded Gray and Premium Sanded Gray: The Western 1-Kote Sanded blends shall be mixed with clean, potable water in accordance with the manufacturer's instructions. Each bag of sanded blend shall be mixed with no more than one and one-third gallons (5 L) of water to produce the paste. One gallon (3.8 L) of water shall be added to the mixer before the addition of each bag of Sanded blend product. The additional one-third gallon (1.3 L) or 40 fluid ounces shall be added as the product is mixed.

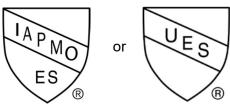
#### 5.0 IDENTIFICATION

To identify the products recognized in this report, the packaging shall include the company name or trademark, the product name, and the Evaluation Report Number (ER-382).

This report recognizes the following products:

- Western 1-Kote Exterior Stucco System
- Western 1-Kote Gray Concentrate
- Western 1-Kote Gray Premium Concentrate
- Western 1-Kote Sanded Gray
- Western 1-Kote Premium Sanded Gray
- ASH GROVE® 1-Kote Premix Stucco System
- Dryvit Commercial Cement Plaster (CCP) System and Stuccoat Cement Plaster System.
- Sto Powerwall<sup>®</sup> Stucco System

Identification may also include either of the IAPMO Uniform ES Marks of Conformity as shown below:



**IAPMO UES ER-382** 

The Mark of Conformity and Evaluation Report Number may be linked to the certified product by the placement of the following web address on the packaging.

#### https://www.westernblended.com/compliance

This web address directs users to the product compliance page, which includes a link to the evaluation report, the manufacturer's published installation instructions, and product specifications. The web address is placed on the packaging of every product certified under this evaluation report and shall not be used on any other product:

#### 6.0 SUBSTANTIATING DATA

- **6.1** Data in accordance with the ICC-ES Acceptance Criteria for Cementitious Exterior Wall Coatings (AC11), dated January 2013 (editorially revised October 2020).
- **6.2** Manufacturer's quality documentation, descriptive literature, and installation instructions.
- **6.3** Reports of testing in accordance with ASTM E72, E136, G155, C926, C1063, C840, C1396, C1177, C834 and C920.
- **6.4** Reports of testing and analysis in accordance with NFPA 285.
- **6.5** Reports of fire-resistance testing in accordance with ASTM E119.
- **6.6** Test reports are from laboratories in compliance with ISO/IEC 17025.

#### 7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Sacramento Stucco Co., Inc's Western 1-Kote Exterior Stucco System to assess its conformance to the codes and standards shown in Section 1.0 of this report and documents the product's certification. Products are manufactured at the locations noted in Section 2.9 of this report under a quality control program with periodic inspections under the surveillance of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email at info@uniform-es.org

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#### **TABLE 3 – ALLOWABLE WIND LOADS**

Wall Construction	Framing Minimum Specification	Backing	Backing Maximum Framing Spacing <sup>1</sup> (inches)	
		Foam Plastic	24	28
Wood Framing <sup>2</sup>	0.50 SG	Gypsum	24	25
		Fiberboard or WSP <sup>3</sup>	24	35
Steel Framing	No.20 gauge <sup>4</sup>	Foam Plastic or any rigid sheathing	24	35
Concrete and Masonry	-	Direct	-	Limited by wall capacity

SI conversions: 1 inch = 25.4 mm; 1 psf = 47.9 N/m<sup>2</sup>

TABLE 4 – STAPLE SPACING FOR ATTACHING LATH OVER FOAM PLASTIC BOARDS 1, 2, 3

Foam Plastic Board Thickn	ess (inches)	1/2	1	1/2	1	1/2	1	1/2	1	1/2	1	1/2	1
Wood Species	Specific Gravity	16	iga	15	ga	14	ga	13	ga	12	ga	10	)ga
Douglas Fir-Larch	0.50	6	-	6	-	6	-	6	-	6	-	6	-
Western Hemlock	0.47	6	6	6	6	6	6	6	6	6	6	6	6
Douglas Fir (S); Hem-Fir (N)	0.46	6	6	6	6	6	6	6	6	6	6	6	6
Hem-fir	0.43	5	5	6	5	6	6	6	6	6	6	6	6
Spruce-Pine-Fir	0.42	5	5	6	5	6	6	6	6	6	6	6	6
Western Woods	0.36	3	3	4	4	5	4	5	5	5	5	6	6

SI conversions: 1 inch = 25.4 mm

 $<sup>^1</sup>$ Supporting wall shall have a maximum deflection of L/240 of the span and be designed to support the design load.

<sup>&</sup>lt;sup>2</sup>Tables 4 and 5 of this report provide for installation over wood structural sheathing using alternative fastener spacing.

<sup>&</sup>lt;sup>3</sup>Wind pressures for WSP backing shall not exceed those set forth in IBC Table 2304.6.1 or IRC Table R602.3(3).

<sup>&</sup>lt;sup>4</sup>The gauge thickness shall be a minimum 0.035 inch.

<sup>&</sup>lt;sup>1</sup> Foam plastic insulation boards shall be installed over wood structural sheathing fastened to wood studs.

 $<sup>^{2}</sup>$  Wood structural sheathing shall be attached to wood studs in accordance with the applicable code.

<sup>&</sup>lt;sup>3</sup> Staples shall penetrate a minimum of 1-inch into wood framing and sheathing combined.

<sup>&</sup>lt;sup>4</sup> Alternatively No.11-gauge roofing nails with minimum <sup>3</sup>/<sub>8</sub>-inch-diameter heads may substitute for any staple gauge in this table.



Number: 382

#### TABLE 5 - FIRE-RESISTANCE-RATED WALL ASSEMBLIES

Assembly No.1

2x4 wood studs 24 inches on center with 5/8-inch Type X gypsum wallboard

Construction<sup>1</sup> – 2-by-4 wood studs spaced at a maximum of 24 inches on center. The interior face has one layer of %-inch-thick Type X gypsum wallboard applied vertically with all joints backed by framing and attached with 6d by 1<sup>7</sup>/<sub>8</sub>-inch-long coated nails having %-inch-diameter heads at 7 inches on center to studs, plates, and blocking. Nail heads and joints of the wallboard shall be taped and treated with joint compound in accordance with IBC Section 2508.4, and either ASTM C840 or GA-216. The outside face has one layer of %-inch-thick or greater, 48-inch-wide Type X gypsum sheathing board applied vertically, with all joints backed by framing and attached to wood studs using No.11 gauge by 1¾-inch-long galvanized roofing nails having 7/<sub>16</sub>-inch or ½-inch-diameter heads spaced 4 inches on center at edges and 7 inches on center at intermediate studs and top and bottom plates. The water-resistive barrier, lath, and stucco shall be applied as described in Sections 3.2.3 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable  $F_c$  (IBC); or
- **2.** For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$  calculated for studs having a slenderness ratio le/d of 33 (IBC).

#### Assembly No.2

2x4 or 2x6 wood studs 16 inches on center with 1/2-inch-thick Type X gypsum wallboard and mineral wool batts

Construction¹ – 2x4 or 2x6 wood studs spaced at maximum 16 inches on center. The interior face has one layer of ½-inch-thick Type X gypsum wallboard with the long dimension applied horizontally, with all joints backed by framing and attached with No.13 gauge by 1½-inch-long gypsum wallboard nails having <sup>19</sup>/<sub>64</sub>-inch-diameter heads spaced at 6 inches on center to studs, plates, and blocking. Nail heads and wallboard joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA-216. Mineral wool batts, 3½-inch or 5 ½-inch-thick, 15-inch-wide R-13 having 1.72 pcf density and with a vapor barrier on one face, shall be placed between the studs and stapled to one face of the studs. One layer of ½-inch-thick gypsum sheathing board is applied vertically or horizontally to the outside face of wood studs with all joints backed by framing and attached with No.13 by 1½-inch-long gypsum wallboard nails having <sup>19</sup>/<sub>64</sub>-inch-diameter heads spaced 6 inches on center to studs, plates, and blocking. Nail heads and joints shall be taped and treated with joint compound in accordance with ASTM C840 or GA-216. The water-resistive barrier, galvanized wire fabric lath, and stucco shall be applied in accordance with Sections 3.2.3 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. 1,100 pounds per stud for 2x4 construction.
- 2. 3,000 pounds per stud for 2x6 construction.
- **3.** For 2x4 construction, a maximum of 54 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the ANSI/AWC NDS (NDS).
- 4. For 2x6 construction, a maximum of 44.7 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS.
- 5. For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable  $F_c$  (IBC); or
- **6.** For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$  calculated for studs having a slenderness ratio le/d of 33 (IBC).

#### Assembly No.3

2x4 or 2x6 wood studs 24 inches on center with %-inch-thick Type X gypsum wallboard, fiberglass batt insulation, and water-resistant-core gypsum or OSB or plywood sheathing

Construction¹ – 2-by-4 or 2-by-6 wood studs spaced at maximum 24 inches on center. The interior face has one layer of %-inch-thick Type X gypsum wallboard applied horizontally to the interior face of wood studs with joints backed by framing and solid blocking installed horizontally at the wall mid-height and attached with 1%-inch-long cupped-head gypsum wallboard nails having a 0.10-inch-diameter shank and 0.30-inch-diameter head spaced 8 inches on center to studs, plates, and blocking. Nail heads and board joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA-216. 3%-inch-thick, R-11 Kraft-paper-faced fiberglass batt insulation, complying with Section 720 of the IBC or Section R302.10 of the IRC shall be placed between the studs. The outside face of the studs shall be covered with ½-inch-thick gypsum sheathing or 7/16-inch-thick wood structural panel sheathing attached in accordance with IBC Section 2304.6.1, as applicable. Exterior sheathing shall have the horizontal joints offset 24 inches from the horizontal joints of the interior gypsum wallboard. The water-resistive barrier, lath, and stucco shall be applied as described in Sections 3.2.3 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. 1,100 pounds per stud for 2x4 construction.
- 2. 3,000 pounds per stud for 2x6 construction.
- 3. A maximum of 44.7 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS.
- 4. For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable Fc' (IBC); or
- **5.** For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$  calculated for studs having a slenderness ratio le/d of 33 (IBC).

#### TABLE 5 (continued) – FIRE-RESISTANCE-RATED WALL ASSEMBLIES

**Assembly No.4** 

2x4 or 2x6 wood studs 24 inches on center with %-inch-thick Type X gypsum wallboard, fiberglass batt insulation and 7/16-inch-thick OSB sheathing

Number: 382

Construction¹ – 2-by-4 or 2-by-6 wood studs spaced a maximum of 24 inches on center. The interior face has one layer of %-inch-thick Type X gypsum wallboard applied with the long dimension vertically and fastened with No.13 by 1%-inch-long cupped-head gypsum wallboard nails having a <sup>19</sup>/<sub>64</sub>-inch-diameter head spaced 8 inches on center to studs and plates. Nail heads and board joints shall be taped and treated with joint compound in accordance with ASTM C840 or GA-216. 3½-inch-thick R-11 Kraft-paper-faced fiberglass batt insulation complying with Section 720.1 and 720.2 of the 2021, 2018, 2015, and 2012 IBC (Section 719.1 and 719.2 of the 2009 IBC), or Section R302.10.1 of the IRC shall be placed between the studs. The exterior face has <sup>7</sup>/<sub>16</sub>-inch-thick OSB attached in accordance with IBC Section 2304.6.1. A water-resistive barrier shall be installed over the sheathing. Foam plastic insulation, lath, and stucco shall be applied as described in Sections 3.2.3 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. 1,100 pounds per stud for 2x4 construction.
- 2. 3,000 pounds per stud for 2x6 construction.
- 3. For 2x4 construction, a maximum of 47.5 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS.
- 4. For 2x6 construction, a maximum of 44.7 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS.
- 5. For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable  $F_c$  (IBC); or
- **6.** For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$  calculated for studs having a slenderness ratio le/d of 33 (IBC).

#### **Assembly No.5**

2x4 or 2x6 wood studs 24 inches on center with %-inch-thick Type X gypsum wallboard and open stud exterior face

Construction¹ – 2-by-4 or 2-by-6 wood studs spaced at maximum of 24 inches on center. The interior face has one layer of %-inch-thick Type X gypsum wallboard applied vertically and attached with No.13 by 1%-inch-long cupped-head gypsum wallboard nails having a <sup>19</sup>/<sub>64</sub>-inch-diameter head spaced 8 inches on center to studs and plates. Nail heads and board joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA-216. The spaces between studs shall be completely filled with 3½-inch-thick R-11, kraft-paper-faced, fiberglass batt insulation. The insulation shall comply with 2021, 2018, 2015, and 2012 IBC Section 720.1 and 720.2 (2009 IBC Section 719.1 and 719.2), or IRC Section R302.10.1. A water-resistive barrier shall be installed over the open studs. Foam plastic insulation, lath, and stucco shall be applied over the water-resistive barrier as described in Sections 3.2.3 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. 1,100 pounds per stud for 2x4 construction.
- 2. 3,000 pounds per stud for 2x6 construction.
- 3. For 2x4 construction, a maximum of 47.5 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS.
- **4.** For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable  $F_c$  (IBC); or
- **5.** For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$  calculated for studs having a slenderness ratio le/d of 33 (IBC).

SI conversions: 1 inch = 25.4 mm; 1 lbs = 4.4 N; 1pcf = 16 kg/m<sup>3</sup>

 $<sup>^{1}</sup>$  Supplemental information can be found at  $\underline{www.westernblended.com}$ 



Assembly No.6a (FIGURE 12) 2x4 or 2x6 wood studs 24 inches on center with open stud exterior face (Mineral Wool Exterior Continuous Insulation)

Number: 382

Construction - 2-by-4 or 2-by-6 wood studs spaced at a maximum of 24 inches on center. The interior face has one layer of \%-inch-thick Type X gypsum wallboard applied horizontally and attached using 1%-inch-long cupped-head gypsum wallboard nails spaced at max. 12 inches on center to studs and plates. Nail heads and board joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA-216. The spaces between studs shall be completely filled with ROCKWOOL Comfortbatt® mineral wool insulation batts, with equal thickness to stud depth. The exterior face consists of the stucco application as described in Sections 3.2.3 and 3.2.5 of this report.

A water-resistive barrier is fastened with one layer of Grade D, 60 minute building paper or DELTA VENT SA shall be installed to the studs per the manufacturer's installation instructions, or any other WRB that complies with the 2021 and 2018 IBC Section 1403.2 (2015, 2012, and 2009 IBC Section 1404.2), or IRC Section R703.2, as applicable. The ROCKWOOL Comfortboard® mineral wool board continuous insulation is installed horizontally over the water-resistive barrier in compliance with Section 3.2.1.3 of this report. The lath and stucco shall be applied over the water-resistive barrier as described in Sections 3.2.3.6 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. 1,100 pounds per stud for 2x4 construction.
- 2. 3,000 pounds per stud for 2x6 construction.
- 3. A maximum of 58 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS.
- **4.** For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable  $F_c$  (IBC); or
- 5. For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$ calculated for studs having a slenderness ratio le/d of 33 (IBC).

### Assembly No.6b (FIGURE 12)

2x4 or 2x6 wood studs 24 inches on center with wood-based sheathing (Mineral Wool Exterior Continuous Insulation)

Construction 2 - 2-by-4 or 2-by-6 wood studs spaced at maximum of 24 inches on center. The interior face has one layer of %-inch-thick Type X gypsum wallboard applied horizontally and attached using 1%-inch-long cupped-head gypsum wallboard nails spaced at max, 12 inches on center (8 inches on center for interior exposure applications) to studs and plates. Nail heads and board joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA-216. The spaces between studs shall be completely filled with ROCKWOOL Comfortbatt® mineral wool insulation batts, with equal thickness to stud depth. The exterior face consists of the stucco application as described in Sections 3.2.3 and 3.2.5 of this report.

Sheathing shall be min. 7/16" OSB or plywood fastened to the studs, sill, and plates using 2-3/8" 6D coated sinker nails spaced 8" on center. An alternative is ½" Zip panels installed per the manufacturer's instructions. The WRB is not required over Zip panels.

A water-resistive barrier is fastened with one layer of Grade D, 60 minute building paper or DELTA VENT SA shall be installed to the studs per the manufacturer's installation instructions, or any other WRB that complies with the 2021 and 2018 IBC Section 1403.2 (2015, 2012, and 2009 IBC Section 1404.2), or IRC Section R703.2, as applicable. The ROCKWOOL Comfortboard® mineral wool board continuous insulation is installed horizontally over the water-resistive barrier and shall comply with Section 3.2.1.3 of this report. The lath and stucco shall be applied over the water-resistive barrier as described in Sections 3.2.3.6 and 3.2.5 of this report.

#### Axial (ASD) Loading shall be the lesser of:

- 1. 1,100 pounds per stud for 2x4 construction.
- 2. 3,000 pounds per stud for 2x6 construction.
- 3. Unrestricted load-bearing wall assembly
- 4. For studs with a slenderness ratio, le/d, greater than 33, the design stress shall be reduced to 78 percent of allowable  $F_c$  (IBC); or
- 5. For studs with a slenderness ratio, le/d, not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress  $F_c$ calculated for studs having a slenderness ratio le/d of 33 (IBC).

VALUATION REPORT Number: 382

Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

### TABLE 6 - NFPA 285 WALL ASSEMBLY WITHOUT FOAM INSULATION

Framing	No.20-gauge [0.035 inch (0.889 mm)] by 3 <sup>5</sup> / <sub>8</sub> -inch-wide (92 mm) non-load-bearing steel studs shall be spaced at maximum 16 inches (406 mm) on center. Wall openings shall be framed with a minimum 0.125-inch-thick (3.18 mm) steel or tubular aluminum.  Alternate Framing: 2x4 or deeper non-bearing Fire-Retardant-Treated Wood (FRTW) studs spaced at 16 inches (406 mm) (min.) or 24" on center (609 mm) (max.) on center meeting the requirements of IBC Section 2303.2 may be used instead of steel studs where fire-resistance-rated construction is not required in accordance with Section 603 of the IBC.
Interior	One layer of 5/8-inch-thick (15.9 mm) Type X gypsum wallboard shall be applied vertically on the interior side and attached with No.8 by 1½-inch-long (31.8 mm) bugle-head screws spaced at 8 inches (203 mm) on center at board joints and 12 inches (305 mm) on center in the field. Gypsum wallboard fasteners and joints shall be taped and treated in accordance with Section 2508.4 of the IBC and either ASTM C840 or GA-216.
Fireblocking <sup>1</sup>	Fireblocking consisting of 4 pcf (64 kg/m³) density (min.) mineral wool insulation shall be installed in the wall stud spaces at the ceiling and floor levels in accordance with Section 718.2 of the IBC. The fiber insulation shall be nominally 4 inches (102 mm) thick, 6 to 8 inches (152 mm to 203 mm) wide, and sized to achieve a friction fit within the stud space.
Insulation	Any non-combustible insulation.
Sheathing	The exterior side shall have one layer of ½ -inch-thick (15.9 mm) gypsum sheathing applied horizontally and attached with No.8 by 1¼-inch-long (31.8 mm) bugle-head screws spaced at 8 inches (203 mm) on center along all framing.  Alternate Sheathing: Fire-Retardant-Treated plywood sheathing, ½-inch-thick (12.7 mm) (min.) meeting the requirements of IBC Section 2303.2 may be used instead of gypsum sheathing. Use of FRTW sheathing shall comply with Section 603 of the IBC.
WRB <sup>1</sup>	Henry Super Jumbo Tex 60 Minute or another water-resistive barrier that is shown by ASTM E1354 testing (at 50kW/m² min. heat flux) and analysis to be equivalent in flammability. The following WRBs were tested and shown to be equivalent: Dupont Tyvek CommercialWrap, CommercialWrap D, Henry WeatherSmart (Commercial Housewrap, Drainable), Keene Driwall Air Weather Barrier (AWB) High Permeability (HP)
Optional Rainscreen	Keene Driwall rainscreen as described in Section 3.2.3.3 may be installed over the WRB or exterior insulation.
Lath	Woven-wire fabric lath, 20 gauge minimum, fastened in accordance with Section 3.2.1.3 or as required by code and type of substrate.
Stucco	The stucco shall be applied in accordance with Section 3.2.5 of this report.

<sup>1.</sup> Verification of compliance and equivalency is beyond the scope of this report and is determined by a separate research report or as otherwise allowed by the building official.



VALUATION REPORT Number: 382

Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

### TABLE 7 (FIGURE 14) - NFPA 285 WALL ASSEMBLY WITH MINERAL WOOL BOARD INSULATION

Framing	No.20-gauge [0.035 inch (0.889 mm)] by 3 <sup>5</sup> / <sub>8</sub> -inch-wide (92 mm) non-load-bearing steel studs shall be spaced at maximum 16 inches (406 mm) on center. Wall openings shall be framed with minimum 0.125-inch-thick (3.18 mm) steel or tubular aluminum.  Alternate Framing: Nominal 2x4 or deeper wood studs spaced at 16 inches (406 mm) or 24 inches (609 mm) on center with a single top plate and a single bottom plate fastened with header and sill plates with two 16d framing nails per stud per end, meeting the requirements of IBC Section 2303.2 may be used instead of steel studs where fire-resistance-rated construction is not required in accordance with Section 603 of the IBC.
Interior	One layer of 5/8-inch-thick (15.9 mm) Type X gypsum wallboard shall be applied horizontally on the interior side and attached with 1 5/8-inch-long (41.4 mm) drywall screws spaced at 12 inches (304 mm) on center at board joints and 12 inches (305 mm) on center in the field. Gypsum wallboard fasteners and joints shall be taped and treated in accordance with Section 2508.4 of the IBC and either ASTM C840 or GA-216.
Insulation	The spaces between studs shall be completely filled with any non-combustible insulation, with equal thickness to stud depth.
Sheathing	The exterior side shall have one layer of min. ½ inch-thick (15.9 mm) gypsum sheathing applied horizontally and attached with No.8 by 1½-inch-long (31.8 mm) bugle-head screws spaced at 8 inches (203 mm) on center along all framing.  Alternate Sheathing: Fire-Retardant-Treated plywood sheathing, min. ½-inch-thick (12.7 mm) (min.) meeting the requirements of IBC Section 2303.2 may be used instead of gypsum sheathing. Use of FRTW sheathing shall comply with Section 603 of the IBC.
WRB <sup>1</sup>	Henry Super Jumbo Tex 60 Minute or another water-resistive barrier that is shown by ASTM E1354 testing (at 50kW/m² min. heat flux) and analysis to be equivalent in flammability. The following WRBs were tested and shown to be equivalent: Dupont Tyvek CommercialWrap, CommercialWrap D, Henry WeatherSmart (Commercial Housewrap, Drainable), Keene Driwall Air Weather Barrier (AWB) High Permeability (HP)
Exterior Insulation	Mineral Wool Insulation Board at a minimum of 1-inch thickness on the exterior side compliant with requirements outlined in Section 3.2.2, and fastened as described in Section 3.2.1.4.
Optional Rainscreen	Keene Driwall rainscreen as described in Section 3.2.3.3 may be installed over the WRB or exterior insulation.
Lath	Woven-wire fabric lath, 20 gauge minimum, fastened in accordance with Section 3.2.1.3 or as required by code and type of substrate.
Stucco	The stucco shall be applied in accordance with Section 3.2.5 of this report.

<sup>1.</sup> Verification of compliance and equivalency is beyond the scope of this report and is determined by a separate research report or as otherwise allowed by the building official.

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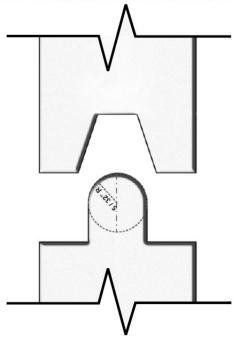
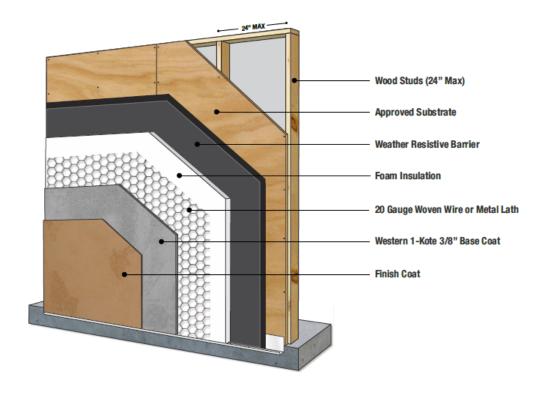


Figure 2 - Stucco System with Wood-Based Panels and Foam Plastic



Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

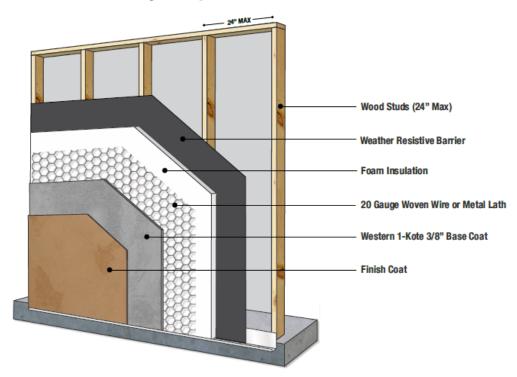
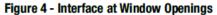
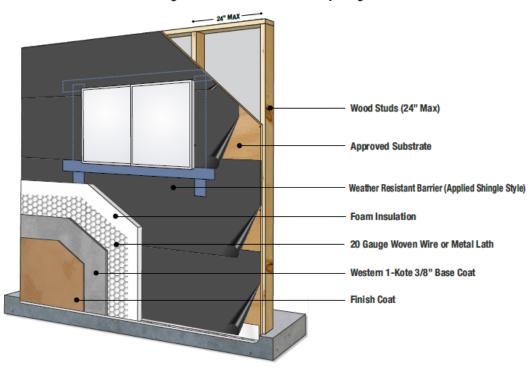


Figure 3 - System with Unbacked Foam Plastic





TON REPORT Number: 382

Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

Figure 5 - Plaster Termination at Window with Integral Flange

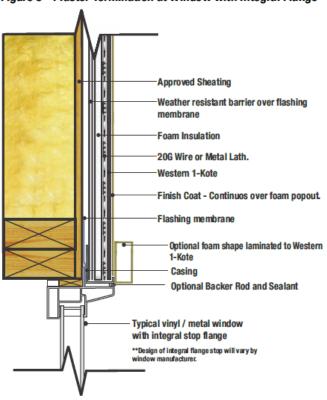


Figure 6 a - Corner Square Termination

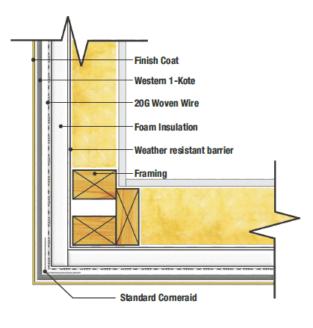


Figure 6 b - Corner Bullnose Termination

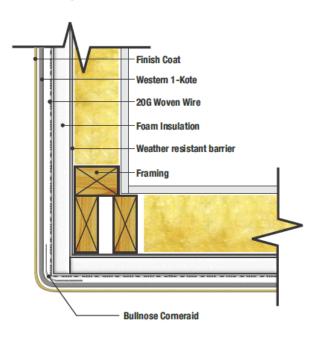
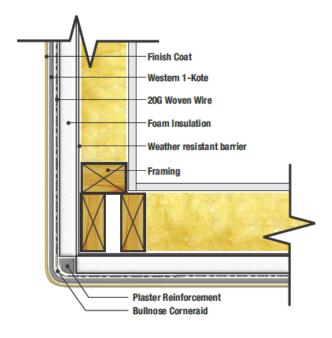


Figure 6 c - Corner with Reinforcement



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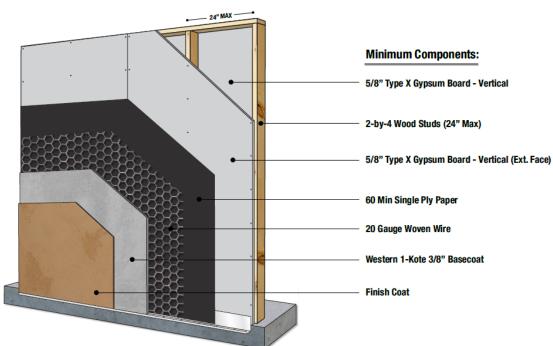
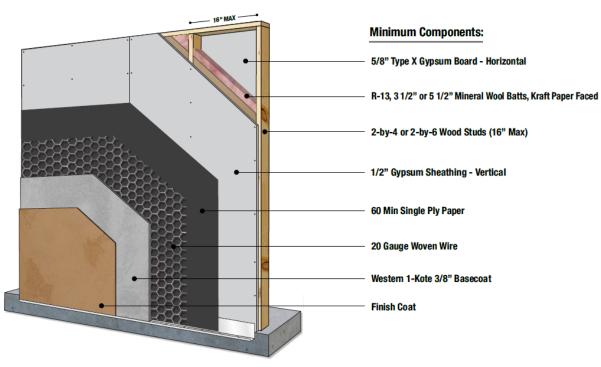


Figure 7 - One Hour Firewall Assembly No. 1 (Table 1)





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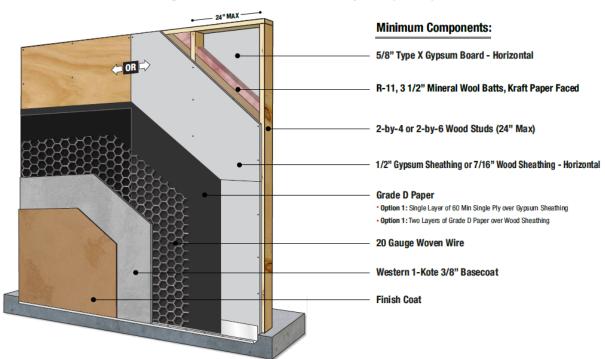
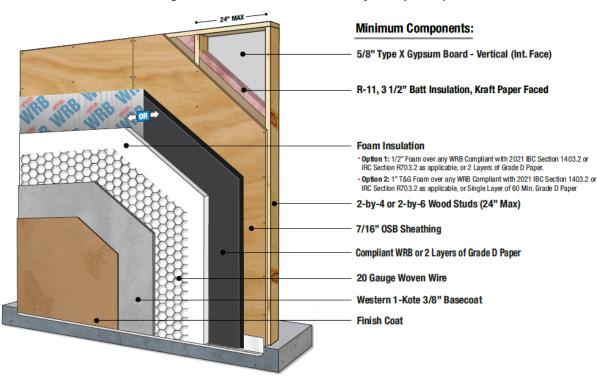


Figure 9 - One Hour Firewall Assembly No. 3 (Table 3)

Figure 10 - One Hour Firewall Assembly No. 4 (Table 4)



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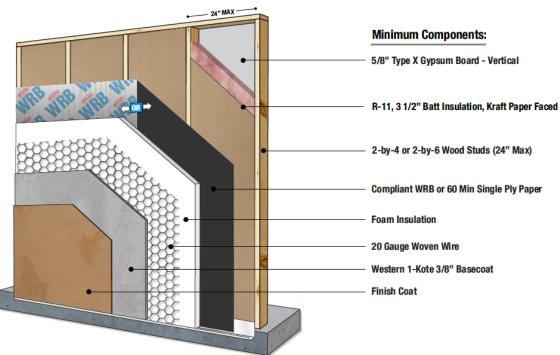
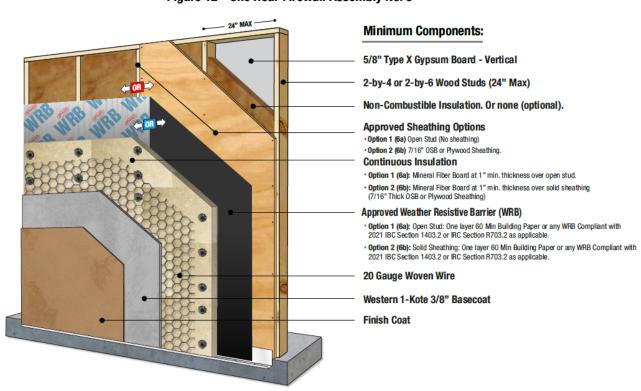


Figure 11 - One Hour Firewall Assembly No. 5

Figure 12 - One Hour Firewall Assembly No. 6



REPORT Number: 382

Originally Issued: 02/20/2015 Revised: 07/18/2023 Valid Through: 02/28/2024

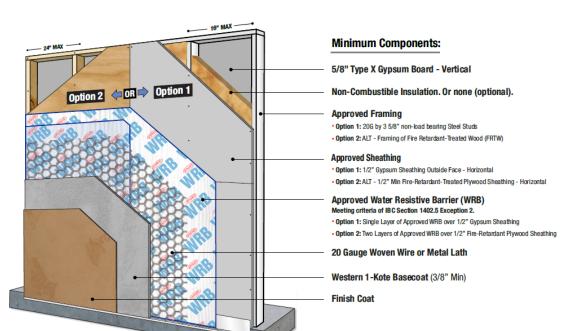
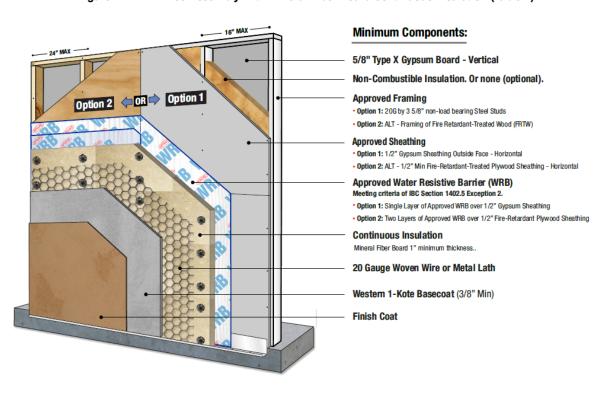


Figure 13 - NFPA 285 Assembly without Continuous Insulation (Table 6)

Figure 14 - NFPA 285 Assembly with Mineral Fiber Board Continuous Insulation (Table 7)





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## Figure 15 - Installation Card

Sacramento Succo	WESTERN Western 1 Kote Exterior Stucco System Sacramento Stucco Company
Job Address	IAPMO Evaluation Services Evaluation Report 382
	Date of Job Completion
Plastering Contractor	
Name:	
Telephone No.:	
Approved contractor numb issued by coating manufactors	er as eturer:
	sterior coating system on the building exterior at the above address has been the evaluation report specified above and the manufacturer's instructions.
	ure of authorized representative or plastering contractor Date must be presented to the building inspector after completion of work and before final inspection

### **CALIFORNIA SUPPLEMENT**

SACRAMENTO STUCCO CO., INC. 1550 Parkway Boulevard Sacramento, California 95691 (916) 372-7442 www. westernblended.com

# WESTERN 1-KOTE EXTERIOR STUCCO SYSTEM

## ADDITIONAL COMPANY AND PRODUCT NAMES RECOGNIZED IN THIS REPORT:

- ASH GROVE PACKAGING, Ash Grove 10809 Executive Center Drive, Suite 321 Little Rock, Arkansas 72211 (501) 224-3372 ASH GROVE® 1-Kote Premix Stucco System
- DRYVIT SYSTEMS, INC.
   One Energy Way
   West Warwick, Rhode Island 02852
   (401) 822-4100
   Dryvit Commercial Cement Plaster (CCP)
   System
- STO CORP.
   3800 Camp Creek Parkway SW Building 1400, Suite 120 Atlanta, Georgia 30331 (800) 221-2397 StoPowerwall® Stucco System

CSI Section: 09 25 00 Other Plastering

#### 1.0 RECOGNITION

Western 1-Kote Systems evaluated in this report are satisfactory alternatives to the cement plaster stucco wall coverings prescribed in the following codes and regulations:

- 2022 and 2019 California Building Code (CBC)
- 2022 and 2019 California Residential Code (CRC)

#### 2.0 LIMITATIONS

Use of the Exterior Stucco Systems recognized in this supplement is subject to the following limitations in addition to the limitations shown in ER-382:

Number: 382

- **2.1** The Exterior Stucco Systems shall comply with the provisions applicable to the 2021 IBC or 2021 IRC (2022 CBC and CRC), or 2018 IBC or 2018 IRC (2019 CBC or 2019 CRC), as applicable, in ER-382.
- **2.2** The Exterior Stucco Systems comply with Section 707A.3, Item 1 of the CBC, and may be used in the exterior design and construction of new buildings located within a Fire Hazard Severity Zone or Wildland-Urban Interface Fire Area in accordance with Section 701A.1 of the CBC when the additional provisions of Section 707A of the CBC are satisfied.
- **2.3** The Exterior Stucco Systems comply with Section R337.7.3, Item 1 of the CRC, and may be used in the exterior design and construction of new buildings located within a Fire Hazard Severity Zone or Wildland-Urban Interface Fire Area in accordance with Section R337.1.1 of the CRC when the additional provisions of Section R337.7 of the CRC are satisfied.
- **2.4** Protection against condensation shall be provided in accordance with Section R703.1.1 of the CRC.
- **2.5** This supplement expires concurrently with ER-382.

For additional information about this evaluation report please visit <a href="https://www.uniform-es.org">www.uniform-es.org</a> or email at <a href="mailto:info@uniform-es.org">info@uniform-es.org</a>