ICC-ES Evaluation Report

ESR-5556

Reissued January 2025

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Subject to renewal January 2026

This report also contains:

- City of Chicago Supplement
- CA Supplement
- FL Supplement

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DIVISION: 06 00 00—WOOD, PLASTIC, AND COMPOSITES Section: 06 05 73.13—Fire-Retardant Wood Treatment	REPORT HOLDER: ARXADA ADDITIONAL LISTEES: MID-STATES WOOD PRESERVERS	EVALUATION SUBJECT: DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018 and 2015 *International Building Code®* (IBC)
- 2024, 2021, 2018 and 2015 *International Residential Code®* (IRC)

Properties evaluated:

- Flame spread
- Structural
- Corrosion
- Hygroscopicity
- Fire-resistance-rated Wall Assemblies

2.0 USES

Dricon® Tempus fire-retardant-treated wood is used in areas that are not exposed to the weather or wetting, but may be exposed to dampness where the code permits the use of wood or fire-retardant-treated wood.

3.0 DESCRIPTION

3.1 General:

Dricon® Tempus fire-retardant-treated wood is lumber, and plywood impregnated with Dricon® Tempus fire-retardant chemicals by a pressure process.

Dricon® Tempus treatment of lumber of the following species is recognized as being fire retardant:

- Douglas fir
- Hem-fir
- Spruce-pine-fir
- Western red cedar
- Redwood
- Southern pine
- Spruce
- White fir
- White pine
- Red pine
- Ponderosa pine
- Western hemlock

Dricon® Tempus treatment of plywood fabricated from Group 1 species with both face veneers of the following species is recognized as being fire retardant:

- Southern pine
- Douglas fir
- Spruce-pine-fir
- Lauan
- Redwood

3.2 Flame Spread:

Dricon® Tempus fire-retardant-treated wood has a flame-spread index of 25 or less when subjected to ASTM E84 tests in accordance 2024, 2021, 2018 and 2015 IBC Section 2302.2 and 2024 and 2021 IBC Section 2303.2.3 and 2024 IRC Sections R302.15.3 and R302.15.3.1 [2021 IRC Sections R802.1.5.3 and R802.1.5.3.1 (2018 and 2015 IRC Section R802.1.5)] and shows no evidence of significant progressive combustion when the tests are continued for an additional 20 minutes period. When specifically listed on the product label, Dricon® Tempus treated wood has a smoke developed index of 50 or less when tested in accordance with ASTM E84 as defined in Section 602.2.1 of the IMC (*International Mechanical Code*®).

3.3 Structural Strength and Durability:

3.3.1 General: The effects of the Dricon® Tempus fire-retardant treatment on the strength of the treated lumber and plywood must be accounted for in the design of the wood members and their connections. Load duration factors greater than 1.6 are not permitted to be used in the design.

3.3.2 Lumber: The strength properties of lumber when treated with Dricon® Tempus fire-retardant chemicals and used in applications at ambient temperatures up to 100°F (38°C), are subject to the design factors shown in Table 1 of this report. The strength properties of lumber, when treated with Dricon® Tempus fire-retardant chemicals and used in applications at elevated temperatures up to 150°F (66°C), are subject to the design factors shown in Table 2 of this report.

3.3.3 Plywood: The strength properties of plywood, when treated with Dricon® Tempus fire-retardant chemicals and used in applications at temperatures up to 170°F (77°C), are subject to the span and load limitations shown in Tables 3 and 4 of this report.

3.4 Corrosion: The corrosion rate of aluminum, carbon steel, galvanized steel, copper or red brass in contact with wood is not increased by Dricon® Tempus fire-retardant treatment when the product is used as recommended by the manufacturer.

3.5 Hygroscopicity: Dricon® Tempus treated wood qualifies as an Interior Type A (HT) fire-retardant wood in accordance with the American Wood Protection Association (AWPA) Standard U1, Commodity Specification H, Use Category UCFA. Dricon® treated Douglas fir, southern pine and spruce-pine-fir lumber, and Douglas fir, southern pine and spruce-pine-fir plywood, qualify as Interior Type A (HT) fire-retardant-treated wood when tested at 95 percent relative humidity

4.0 DESIGN AND INSTALLATION

4.1 General:

Structural systems that include Dricon® Tempus fire-retardant-treated lumber or plywood must be designed and installed in accordance with the applicable code using the appropriate lumber design value adjustment factors and plywood spans from Tables 1, 2, 3 and 4 of this report. Ventilation must be provided in accordance with the applicable codes. Use of Dricon® Tempus treated wood is prohibited in unvented roofing assemblies.

The strength design factors, and plywood spans noted in Tables 2, 3 and 4 of this report are applicable under elevated temperatures resulting from cyclic climatic conditions. They are not applicable under continuous elevated temperatures resulting from manufacturing or other processes that require special consideration in design.

The treated lumber and plywood must only be used in areas (including attic spaces) where the lumber is exposed to temperatures of 150°F (66°C) or less and the plywood is exposed to temperatures of 170°F (77°C) or less.

Exposure to precipitation during storage or installation must be avoided. If material does become wet, it must be replaced or permitted to dry (maximum 19 percent moisture content for lumber and 15 percent moisture content for plywood) prior to covering or enclosure by wallboard or other construction materials (except for protection during construction).

4.2 Fasteners:

Fasteners used in Dricon® Tempus fire-retardant-treated wood must be galvanized steel, stainless steel, silicon bronze or copper, in accordance with 2024 and 2021 IBC Section 2304.10.6.3 [2018 and 2015 IBC Section 2304.10.5 (2015 IBC Section 2304.9.5)] and 2024 IRC Section R304.3.3 (2021, 2018 and 2015 IRC Section 317.3.3), and must be subject to the design value adjustments indicated in Table 4 of this report.

4.3 Use as a Component in Fire-resistance-rated Wall Assemblies: Exterior Wall Assembly – Wood Stud Load Bearing Wall: In Type III, Type IV and Type V construction, the exterior wall assemblies must be constructed of Dricon® Tempus treated wood studs and plywood. The design values for the studs must be adjusted in accordance with Tables 1 and 2. The allowable spans for the plywood sheathing must be in

accordance with the spans given in Table 3 and 4 for Dricon® Tempus Wall/Subfloor. The design loads (ASD) used in testing for the load-bearing wood framed walls are based on the allowable axial load of the wall framing studs and support bracing in accordance with the National Design Specification for Wood Construction. No additional bracing from the sheathing is considered. See Figures 2 through 5 for additional assembly details.

4.4 Plywood Shear Walls:

Wood-frame shear walls must be constructed in accordance with Section 2306.3 of the IBC.

When Dricon® Tempus fire-retardant-treated plywood is used in a shear wall, the thickness must be one standard size thicker than that determined in the tabulated allowable shear values contained in Section 4.3 of ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS) or as shown in the tables referenced in IBC Sections 2306.2 or 2306.3. Thickness to be used for FRT plywood compared to untreated plywood shear walls are shown below:

Dricon® Tempus FRT Plywood Thickness (inches)	Untreated Plywood Thickness (inches)
3/8	5/16
7/16	3/8
15/32	7/16
1/2	15/32

5.0 CONDITIONS OF USE:

The Dricon® Tempus fire-retardant-treated wood 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 Strength calculations must be subject to the design factors or span ratings shown in Tables 1, 2, 3 and 4 of this report.

5.2 The strength design factors, and span ratings given in this report must only be used for unincised dimension lumber and plywood of the species noted in this report.

5.3 Dricon® Tempus treated wood must not be installed where it will be exposed to precipitation, direct wetting or regular condensation.

5.4 Dricon® Tempus treated wood must not be used in contact with the ground or in an unvented roofing or roofing support assembly.

5.5 Except as listed below, Dricon® Tempus lumber must not be ripped or milled as this will alter the surface-burning characteristics and invalidate the flame spread classification:

- Western red cedar lumber may be surfaced 1/32 inch (0.79 mm).
- Framing, end cuts, holes, joints such as tongue and groove, bevel, scarf and lap may be used.

5.6 Dricon® Tempus treated plywood may be field cut or ripped in any direction.

5.7 Treatment is at the facilities of the listees noted in this report under a quality-control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Fire-retardant-treated Wood [AC66 (24)], dated June 2025.

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5556) along with the name, registered trademark, or registered logo of the report holder [and/or listee] must be included in the product label.

7.2 In addition, lumber and plywood treated with Dricon® Tempus fire-retardant chemicals must be identified by the structural grade mark of an approved agency. In addition, all treated lumber and plywood must be stamped with the listee company name and location; the product plant identification; labeling information in accordance with 2024 IBC Section 2303.2.5 (2021, 2018 and 2015 IBC Section 2303.2.4) or 2024 IRC Section R302.15.4 (2021, 2018 and 2015 IRC Section R802.1.5.4), as applicable; and the evaluation report number (ESR-5556). Refer to Figure 1.

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

ARXADA
3941 BONSAL ROAD
CONLEY, GEORGIA 30288
www.arxada.com

7.4 The additional listee's contact information is the following:

MID-STATES WOOD PRESERVERS
157 SHELBY ROAD
SIMSBORO, LOUISIANA 71725-0560

TABLE 1— STRENGTH DESIGN FACTORS FOR DRICON® TEMPUS FIRE RETARDANT TREATED LUMBER COMPARED TO UNTREATED LUMBER APPLICABLE AT SERVICE TEMPERATURES UP TO 100°F (38°C)

STRENGTH DESIGN FACTORS	SPECIES			
	Southern Pine	Douglass Fir	Spruce-Pine Fir	Other Softwoods
Bending MOR, [F_b]	0.82	1.0	00.96	0.82
Bending MOE, [E]	0.87	0.90	0.93	0.87
Tension Parallel to Grain, [F_t]	0.98	1.00	0.99	0.98
Shear Parallel to Grain, [F_v]	0.95	1.00	1.00	0.95
Compression Perpendicular to Grain, [$F_{c\text{-}\perp}$]	0.95	0.95	0.95	0.95
Fasteners/Connectors	0.90	0.90	0.90	0.90

TABLE 2—STRENGTH DESIGN FACTORS FOR DRICON® TEMPUS FIRE RETARDANT TREATED LUMBER COMPARED TO UNTREATED LUMBER APPLICABLE AT SERVICE TEMPERATURES UP TO 150° F (66° C)[1,2]

STRENGTH DESIGN FACTORS	SPECIES											
	Southern Pine			Douglass Fir			Spruce-Pine Fir			Other Species		
	Climate Zone			Climate Zone			Climate Zone			Climate Zone		
	1A	1B	2	1A	1B	2	1A	1B	2	1A	1B	2
Bending MOR, [Fb]	0.82	0.82	0.82	1.00	1.00	1.00	0.91	0.93	0.93	0.82	0.82	0.82
Bending MOE, [E]	0.88	0.88	0.88	1.00	1.00	1.00	0.96	0.96	0.96	0.88	0.88	0.88
Tension Parallel to grain, [F_t]	0.89	0.93	0.98	1.00	1.00	1.00	0.95	0.97	0.99	0.89	0.93	0.99
Shear Parallel to grain, [F_v]	0.89	0.93	0.98	1.00	1.00	1.00	0.95	0.97	0.96	0.89	0.93	0.96
Compression Parallel to grain, [F_c]	0.87	0.91	0.96	0.98	0.98	0.98	0.92	0.94	0.96	0.87	0.91	0.96
Fasteners/Connections	0.87	0.90	0.90	0.90	0.98	0.90	0.90	0.90	0.90	0.87	0.90	0.90

[1]Climate Zone definitions:
Zone 1 – Minimum design roof live load or maximum ground snow load ≤ 20 psf (960 Pa)
Zone 1A - Southwest Arizona, Southeast Nevada (Area Bounded by Las Vegas-Yuma-Phoenix-Tucson)
Zone 1B - All other qualifying areas of the United States
Zone2 - Minimum ground snow load > 20 psf (960 Pa)

[2]Duration of load adjustments for snow loads, 7-day (construction) loads, and wind loads as given in the *National Design Specification® for Wood Construction®* also apply.

TABLE 3—TOTAL ALLOWABLE LOADS AND SPANS FOR DRICON® TEMPUS FIRE RETARDANT TREATED SOUTHERN YELLOW PINE PLYWOOD COMPARED TO UNTREATED PLYWOOD APPLICABLE AT SERVICE TEMPERATURES UP TO 170° F (77° C)[1,2, 3, 4,5]

PLYWOOD THICKNESS (INCHES)	UNTREATED SPAN RATING ROOF/ SUBFLOOR	DRICON® TEMPUS ROOF SHEATHING			DRICON® TEMPUS SUB-FLOOR SPAN RATING (INCHES)
		SPAN (INCHES)	Total Allowable Loads (psf) Climate Zone[8]		
			1B	2	
15/32, 1/2	32/16	24	23	61	16
19/32, 5/8	40/20	24	36	95	20
		32	20	54	20
23/32, 3/4	48/24	32	26	67	24
		48	11	30	24
7/8		32	32	85	24
		48	14	38	24
1		32	43	113	24
		48	19	50	24
1 1/8		32	54	143	24
		48	24	63	24

[1]For Service Temperatures < 100 F, use Untreated Span Ratings

[2]Allowable total loads are for unsanded, Structural 1 & 2 Grade plywood, manufactured with Group 1 species, stress grade S-2 (F_b = 1650 psi), one- and two-span conditions.

[3]For allowable live loads, subtract dead load (assumed to be 8 psf) for total loads listed above.

[4]Climate Zone definitions:

Zone 1- Minimum design roof live load or maximum ground snow load ≤ 20 psf (960 Pa)

Zone 1B - All other qualifying areas of the United States

Zone 2 - Minimum ground snow load over > 20 psf (960 Pa).

[5]For other load conditions, contact manufacturer.

TABLE 4—TOTAL ALLOWABLE LOADS AND SPANS FOR DRICON® TEMPUS FIRE RETARDANT TREATED DOUGLAS FIR PLYWOOD COMPARED TO UNTREATED PLYWOOD APPLICABLE AT SERVICE TEMPERATURES UP TO 170° F (77° C)[1,2,3,4,5]

PLYWOOD THICKNESS (INCHES)	UNTREATED SPAN RATING ROOF/ SUBFLOOR	DRICON® TEMPUS ROOF SHEATHING				DRICON® TEMPUS SUBFLOOR SPAN RATING (INCHES)
		SPAN (INCHES)	Total Allowable Loads (psf) Climate Zone			
			1A	1B	2	
15/32, 1/2	32/16	24	3	31	62	16
19/32, 5/8	40/20	24	5	45	92	20
		32	3	25	52	20
23/32, 3/4	48/24	32	3	31	64	24
		48	1	14	28	24

[1]For Service Temperatures < 100 F, use Untreated Span Ratings

[2]Allowable total loads are for unsanded, Structural 1 & 2 Grade plywood, manufactured with Group 1 species, stress grade S-2 (F_b = 1650 psi), one- and two-span conditions.

[3]For allowable live loads, subtract dead load (assumed to be 8 psf) for total loads listed above.

[4]Climate Zone definitions:

Zone 1- Minimum design roof live load or maximum ground snow load ≤ 20 psf (960 Pa)

Zone 1A - Southwest Arizona, Southeast Nevada (Area Bounded by Las Vegas-Yuma-Phoenix-Tucson)

Zone 1B - All other qualifying areas of the United States

Zone 2 - Minimum ground snow load over > 20 psf (960 Pa).

[5]For other load conditions, contact manufacturer.

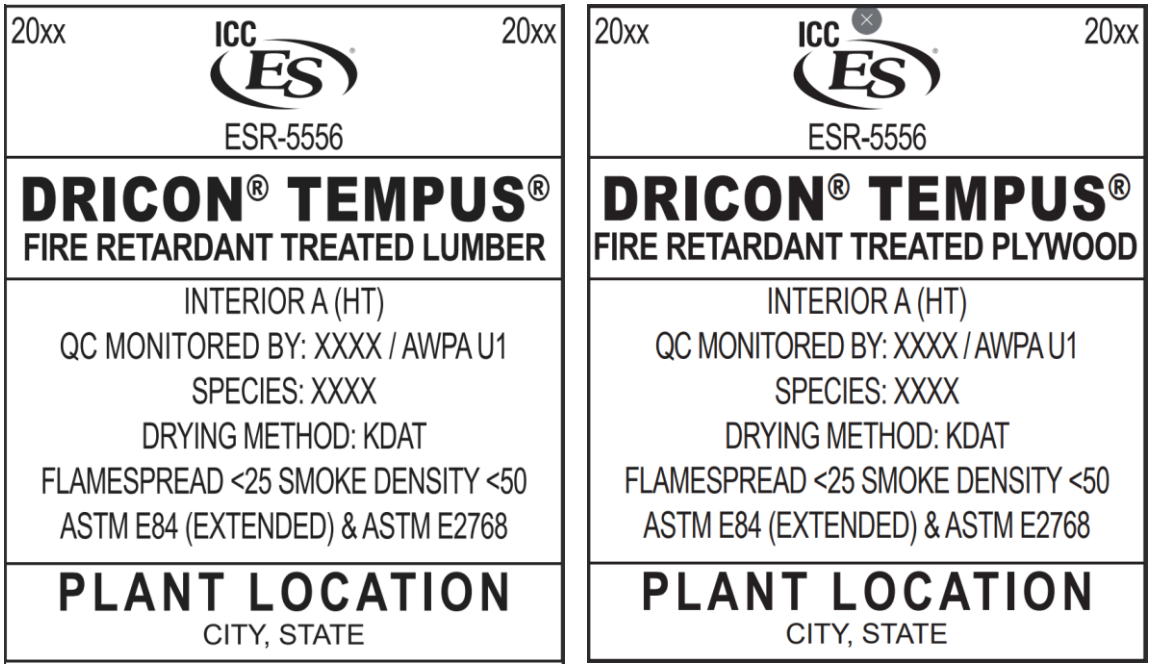


FIGURE 1 – TREATED LUMBER AND PLYWOOD SAMPLE LABELS

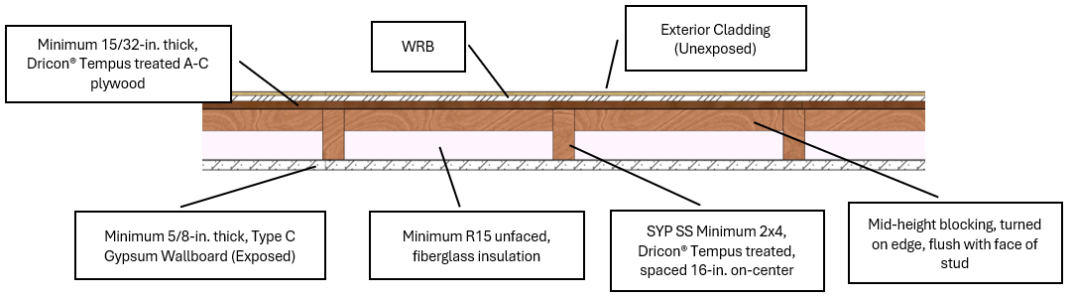
Assembly No.: Assembly No. 1 (Asymmetrical)

Report Holder: ARXADA

Product: DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD

Assembly Rating: 1-Hour from the Interior Face Only

Load: Load Bearing (1607 lbs/stud) – Restricted Load Conditions



1 Wall Framing— Minimum 2-inch by 4-inch (51 mm by 101.6 mm) Dricon® Tempus fire-retardant-treated lumber Southern Yellow Pine (SYP) Select Structural (SS) wood studs, with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 16-inches (406 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Minimum 2-inch by 4-inch (51 mm by 101.6 mm) full-depth blocking, is installed between each stud behind all horizontal sheathing joints at mid-height of the wall assembly and secured with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails.

Optional Fastening – In lieu of the 16d–3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails the following nail options may be substituted:

- 16d common nails ($3^1/_2$-inch (88.9 mm) long by 0.162-inch (4.12 mm) diameter)
- 16d box nails ($3^1/_2$-inch (88.9 mm) long by 0.135-inch (3.43 mm) diameter)
- 12d ring nails ($3^1/_4$-inch (82.6 mm) long by 0.135-inch (3.43 mm) diameter)

2 Interior Sheathing (Exposed Face)— One layer of minimum $^5/_8$-inch-thick (15.9 mm-thick) American Gypsum FIREBLOC® Type C gypsum wallboard, complying with ASTM C1396, is secured directly to the framing, on the interior side of the wall assembly. Sheathing must be secured to the framing using minimum #6 – 1 $^5/_8$-inch (41.3 mm) long, coarse thread, Type W screws (minimum 1 inch (25.4 mm) fastener penetration into framing members) spaced at a maximum of 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Fasteners around the perimeter must be spaced $^3/_8$-inch (9.53 mm) from the edge. Gypsum wallboard must be installed vertically to the studs. All vertical seams of the interior sheathing must be backed by studs and must be staggered from vertical seams of the exterior sheathing on the opposite side of the assembly by a minimum of one stud cavity. All sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch-wide (50.8 mm) paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.

3 Cavity Insulation— Minimum R-15 unfaced batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of $3^1/_2$-inch (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.

4 Exterior Sheathing— One layer of minimum $^{15}/_{32}$-inch-thick (11.9 mm) Dricon® Tempus fire-retardant-treated plywood secured directly to the framing, on the exterior side of the wall assembly, using minimum 8d – $2^3/_8$-inch-long (60.3 mm) by 0.113-inch (2.9 mm) diameter ring shank exterior nails (minimum $1^7/_8$-inch (47.6 mm) fastener penetration into framing members) spaced 8 inches (203 mm) on center around the perimeter and in the field of the plywood. Fasteners around the perimeter must be spaced $^3/_8$-inches (9.53 mm) from the edge. Plywood must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite side of the assembly. All horizontal seams must be backed by blocking. Plywood edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed.

5 Water-Resistive Barrier (WRB)— DuPont™ Tyvek® HomeWrap is secured to the exterior sheathing using T50, $^3/_8$-inch (9.5 mm) wide crown staples spaced a maximum 18 inches (457 mm) on center and no closer than 6 inches (152 mm) on center. Horizontal seams in the water-resistive barrier must have a minimum 1-foot overlap (305 mm) between layers that is taped using 2-inch-wide (50.8 mm) DuPont™ Tyvek® tape in accordance with the water-resistive barrier manufacturer's published installation instructions.

6 Exterior Cladding

A - One layer of $^1/_4$-inch-thick (6.35 mm) James Hardie HardiePanel® gypsum board panels are secured to the studs through the exterior sheathing and water-resistive barrier using minimum 8d – $2^3/_8$-inch-long (60.3 mm) by 0.113-inch (2.9 mm) diameter ring shank framing nails with a minimum 1-$^5/_8$ inch (41.3 mm) fastener penetration into

(Unexposed Face)— framing members), spaced 6 inches (152 mm) around the perimeter and in the field of the board. Exterior cladding must be installed vertically to the studs, and horizontal seams must stagger 6 feet (1.83 m). Exterior cladding must be installed in accordance with the manufacturer's published installation instructions.

Use either A, B or C

B - Standard nominal 4-inch-thick clay brick veneer or concrete.

C - Minimum ¾-inch thick three-coat portland cement (conforming to ASTM C926) or approved synthetic stucco systems with self-furring metal lath or adhesive base coat.

FIGURE 2 – LOAD BEARING WALL ASSEMBLY No. 1 CONSTRUCTION DETAILS

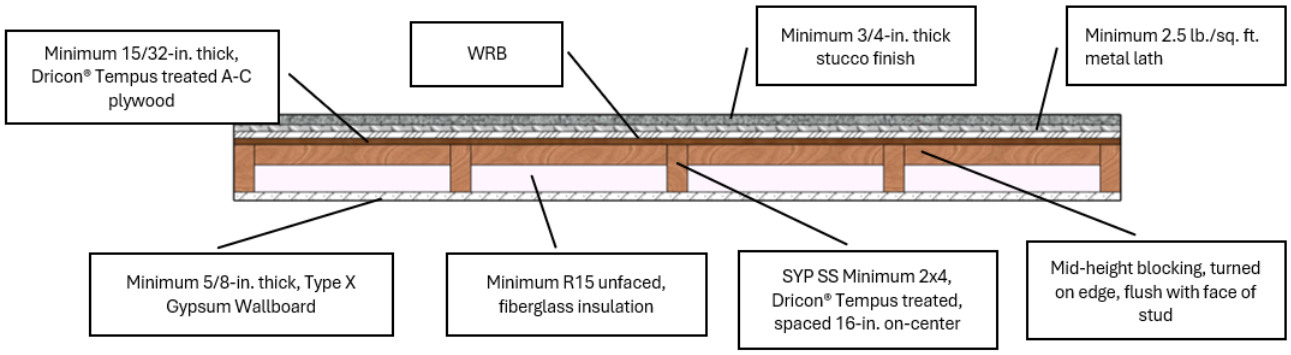
Assembly No.: Assembly No. 2 (Asymmetrical)

Report Holder: ARXADA

Product: DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD

Assembly Rating: 1-Hour from the Interior Face and Exterior Face

Load: Load Bearing (1607 lbs/stud) – Restricted Load Conditions



1 Wall Framing— Minimum 2-inch by 4-inch (51 mm by 101.6 mm) Dricon® Tempus fire-retardant-treated lumber Southern Yellow Pine (SYP) Select Structural (SS) wood studs, with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 16-inches (406 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Minimum 2-inch by 4-inch (51 mm by 101.6 mm) full-depth blocking, is installed between each stud behind all horizontal sheathing joints at mid-height of the wall assembly and secured with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails.

Optional Fastening – In lieu of the 16d–3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails the following nail options may be substituted:

- 16d common nails ($3^1/_2$-inch (88.9 mm) long by 0.162-inch (4.12 mm) diameter)
- 16d box nails ($3^1/_2$-inch (88.9 mm) long by 0.135-inch (3.43 mm) diameter)
- 12d ring nails ($3^1/_4$-inch (82.6 mm) long by 0.135-inch (3.43 mm) diameter)

2 Interior Sheathing— One layer of minimum $^5/_8$-inch-thick (15.9 mm-thick) American Gypsum FIREBLOC® Type C gypsum wallboard, complying with ASTM C1396, is secured directly to the framing, on the interior side of the wall assembly. Sheathing must be secured to the framing using minimum #6 – 1 $^5/_8$-inch (41.3 mm) long, coarse thread, Type W screws with minimum 1 inch (25.4 mm) fastener penetration into framing members, spaced at a maximum of 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Fasteners around the perimeter must be spaced $^3/_8$-inch (9.53 mm) from the edge. Gypsum wallboard must be installed vertically to the studs. All vertical seams of the interior sheathing must be backed by studs and must be staggered from vertical seams of the exterior sheathing on the opposite side of the assembly by a minimum of one stud cavity. All sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch-wide (50.8 mm) paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.

3 Cavity Insulation— Minimum R-15 unfaced batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of $3^1/_2$-inch (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.

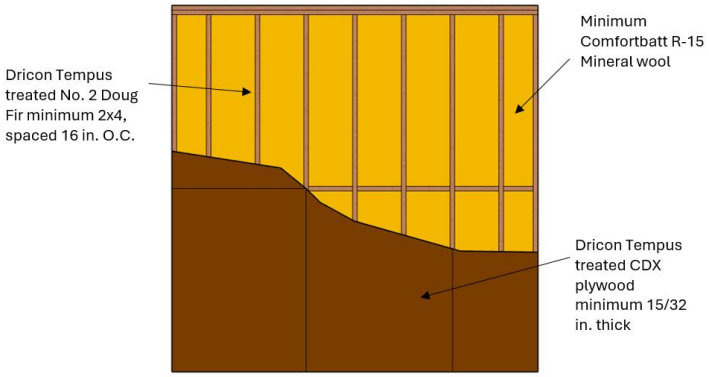
4 Exterior Sheathing— One layer of minimum $^{15}/_{32}$-inch-thick (11.9 mm) Dricon® Tempus fire-retardant-treated plywood secured directly to the framing, on the exterior side of the wall assembly, using minimum 8d – $2^3/_8$-inch-long (60.3 mm) by 0.113-inch (2.9 mm) diameter ring shank exterior nails (minimum $1^7/_8$-inch (47.6 mm) fastener penetration into framing members) spaced 8 inches (203 mm) on center around the perimeter and in the field of the plywood. Fasteners around the perimeter must be spaced $^3/_8$-inches (9.53 mm) from the edge. Plywood must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite side of the assembly. All horizontal seams must be backed by blocking. Plywood edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed.

5 Water-Resistive APOC® #30 standard protection felt paper is secured to the exterior sheathing using 1-inch (25.4 mm) 12-gauge Cap nails spaced a maximum 8 inches (203 mm) on center. Horizontal seams in the water-resistive barrier must have a

	Barrier (WRB)—	minimum 6 inch (152 mm) overlap between layers in accordance with the water-resistive barrier manufacturer's published installation instructions.
6	**Exterior Cladding—**	Minimum 2.5 lbs./ft^2 (12.2 kg/m^2) metal lath secured to the wall assembly using #8 – ½-inch-long (12.7 mm), pancake head lath screws spaced 8 inches (203 mm) on center. Metal lath must be installed vertically. Vertical and horizontal seams must overlap a minimum of 2 inches (50.8 mm). Minimum $^3/_8$-inch (9.53 mm) thick minimum three-coat cementitious stucco (portland cement-based), conforming to the requirements of ASTM C926, installed in accordance with Section 2512 of the IBC.

FIGURE 3 – LOAD BEARING WALL ASSEMBLY No. 2 CONSTRUCTION DETAILS

Assembly No.:	Assembly No. 3 (Asymmetrical)
Report Holder:	ARXADA
Product:	DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD
Assembly Rating:	2-Hour from the Interior Face Only
Load:	Load Bearing (1043 lbs/stud) – Restricted Load Conditions

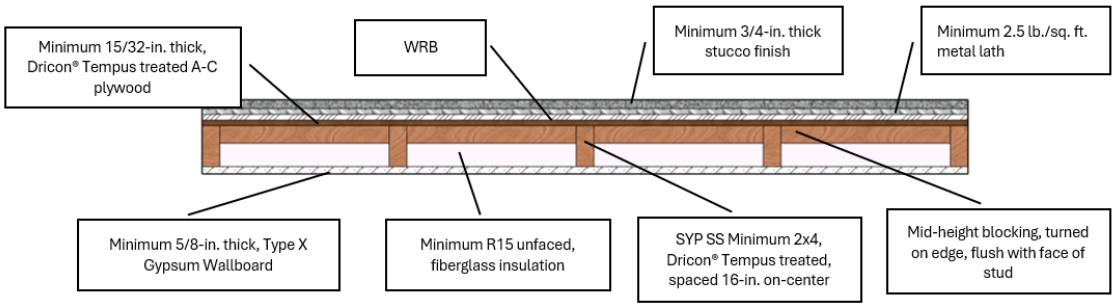


1	**Wall Framing—**	Minimum 2-inch by 4-inch (51 mm by 101.6 mm) Dricon® Tempus fire-retardant-treated lumber Douglas Fir (DF) #2 wood studs, with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 16-inches (406 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Minimum 2-inch by 4-inch (51 mm by 101.6 mm) full-depth blocking, is installed between each stud behind all horizontal sheathing joints at mid-height of the wall assembly and secured with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails. Optional Fastening – In lieu of the 16d–3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails the following nail options may be substituted: • 16d common nails ($3^1/_2$-inch (88.9 mm) long by 0.162-inch (4.12 mm) diameter) • 16d box nails ($3^1/_2$-inch (88.9 mm) long by 0.135-inch (3.43 mm) diameter) • 12d ring nails ($3^1/_4$-inch (82.6 mm) long by 0.135-inch (3.43 mm) diameter)
2	**Interior Sheathing (Exposed Face)—**	Two layers of minimum $^5/_8$-inch-thick (15.9 mm-thick) USG Sheetrock® Brand Firecode® Type C gypsum wallboard, complying with ASTM C1396, are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using minimum #6 – $1^5/_8$-inch (41.3 mm) long, coarse thread, Type W screws with minimum 1 inch (25.4 mm) fastener penetration into framing members, spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using minimum #6 – $2^1/_2$-inch (63.5 mm) long, coarse thread, Type W screws with minimum $1^1/_4$-inch (31.8 mm) fastener penetration into framing members, spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Fasteners around the perimeter for the base and face layers must be spaced $^3/_8$-inch (9.53 mm) from the edge. Gypsum wallboard must be installed vertically to the studs. All vertical seams of the interior sheathing must be backed by studs and must be staggered from vertical seams of the exterior sheathing on the opposite side of the assembly by a minimum of one stud cavity. All face layer sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch-wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.
3	**Cavity Insulation—**	Minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of $3^1/_2$-inch (88.9 mm) and a minimum density of 4.0 lbs./ft^3 (64 kg/m^3) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.

4	**Exterior Sheathing (Unexposed Face)—**	One layer of minimum $^{15}/_{32}$-inch-thick (11.9 mm) Dricon® Tempus fire-retardant-treated plywood secured directly to the framing, on the exterior side of the wall assembly, using minimum 8d – $2^{1}/_{2}$-inch-long (63.5 mm) by 0.113-inch (2.9 mm) diameter ring shank exterior nails with minimum 2 inch (50.8 mm) fastener penetration into framing members, spaced 8 inches (203 mm) on center around the perimeter and in the field of the plywood. Fasteners around the perimeter must be spaced $^{3}/_{8}$-inches (9.53 mm) from the edge. Plywood must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite side of the assembly. All horizontal seams must be backed by blocking. Plywood edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed.
5	**Exterior Cladding (Optional)—**	Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions.
	Use any option A through E	**A -** Masonry brick veneer or concrete **B -** Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. **C -** Hardboard, wood structural panel, plywood, or fiber-cement siding **D -** Metal Siding **E -** Vinyl siding – exterior plastic

FIGURE 4 – LOAD BEARING WALL ASSEMBLY No. 3 CONSTRUCTION DETAILS

Assembly No.:	Assembly No. 4 (Asymmetrical)
Report Holder:	ARXADA
Product:	DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD
Assembly Rating:	2-Hour from the Interior Face; 1-Hour from the Exterior Face
Load:	Load Bearing (1043 lbs/stud) – Restricted Load Conditions



1	**Wall Framing—**	Minimum 2-inch by 4-inch (51 mm by 101.6 mm) Dricon® Tempus fire-retardant-treated lumber Douglas Fir (DF) #2 wood studs, with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 16-inches (406 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Minimum 2-inch by 4-inch (51 mm by 101.6 mm) full-depth blocking, is installed between each stud behind all horizontal sheathing joints at mid-height of the wall assembly and secured with 16d–3-inch (76.2 mm) long by 0.131-inch (3.33 mm) diameter nails. Optional Fastening – In lieu of the 16d–3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails the following nail options may be substituted: • 16d common nails ($3^{1}/_{2}$-inch (88.9 mm) long by 0.162-inch (4.12 mm) diameter) • 16d box nails ($3^{1}/_{2}$-inch (88.9 mm) long by 0.135-inch (3.43 mm) diameter) • 12d ring nails ($3^{1}/_{4}$-inch (82.6 mm) long by 0.135-inch (3.43 mm) diameter)
2	**Interior Sheathing—**	Two layers of minimum $^{5}/_{8}$-inch-thick (15.9 mm-thick) USG Sheetrock® Brand Firecode® Type C gypsum wallboard, complying with ASTM C1396, are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using minimum #6 – $1^{5}/_{8}$-inch (41.3 mm) long, coarse thread, Type W screws with minimum 1 inch (25.4 mm) fastener penetration into framing members, spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using minimum #6 – $2^{1}/_{2}$-inch (63.5 mm) long, coarse thread, Type W screws with minimum $1^{1}/_{4}$-inch (31.8 mm) fastener penetration into framing members, spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Fasteners around the perimeter for the base and face layers must be spaced $^{3}/_{8}$-inch (9.53 mm) from the edge. Gypsum wallboard must be installed vertically to the studs. All vertical seams of the interior sheathing must be backed by studs and must be staggered from vertical seams of the exterior sheathing on the opposite side of the assembly by a minimum of one stud cavity. All face layer sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch-wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.
3	**Cavity Insulation—**	Minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of $3^{1}/_{2}$-inch (88.9 mm) and a minimum density of 4.0 lbs./ft^3 (64 kg/m^3) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.

4	**Exterior Sheathing—**	One layer of minimum $^{15}/_{32}$-inch-thick (11.9 mm) Dricon® Tempus fire-retardant-treated plywood secured directly to the framing, on the exterior side of the wall assembly, using minimum 8d – $2^{1}/_{2}$-inch-long (63.5 mm) by 0.113-inch (2.9 mm) diameter ring shank exterior nails with minimum 2 inch (50.8 mm) fastener penetration into framing members, spaced 8 inches (203 mm) on center around the perimeter and in the field of the plywood. Fasteners around the perimeter must be spaced $^{3}/_{8}$-inches (9.53 mm) from the edge. Plywood must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite side of the assembly. All horizontal seams must be backed by blocking. Plywood edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed.
5	**Water-Resistive Barrier (WRB)—**	APOC® #30 standard protection felt paper is secured to the exterior sheathing using 1-inch (25.4 mm) 12-gauge Cap nails spaced a maximum 8 inches (203 mm) on center. Horizontal seams in the water-resistive barrier must have a minimum 6 inch (152 mm) overlap between layers in accordance with the water-resistive barrier manufacturer's published installation instructions.
6	**Exterior Cladding—**	Minimum 2.5 lbs./ft^2 (12.2 kg/m^2) metal lath secured to the wall assembly using #8 – ½-inch-long (12.7 mm), pancake head lath screws spaced 8 inches (203 mm) on center. Metal lath must be installed vertically. Vertical and horizontal seams must overlap a minimum of 2 inches (50.8 mm). Minimum $^{3}/_{8}$-inch (9.53 mm) thick minimum three-coat cementitious stucco (portland cement-based), conforming to the requirements of ASTM C926, installed in accordance with Section 2512 of the IBC.

FIGURE 5 – LOAD BEARING WALL ASSEMBLY No. 4 CONSTRUCTION DETAILS

DIVISION: 06-00 00—WOOOD, PLASTIC, AND COMPOSITES
Section: 00 00 00—Section Name

REPORT HOLDER:

ARXADA

EVALUATION SUBJECT:

DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Dricon® Tempus fire-retardant-treated wood, described in ICC-ES evaluation report ESR-5556, has/have also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code editions:

- 2019 *Chicago Building Code* (Title 14B)

2.0 CONCLUSIONS

The Dricon® Tempus fire-retardant-treated wood, described in Sections 2.0 through 7.0 of the evaluation report ESR-5556, complies/comply with Title 14B, and is/are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Dricon® Tempus fire-retardant-treated wood described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-5556.
- The design, installation, conditions of use and identification of the Dricon® Tempus fire-retardant-treated wood are in accordance with the 2018 *International Building Code®* (IBC) provisions noted in the evaluation report ESR-5556.
- The design, installation and inspection are in accordance with additional requirements of Chapters 16 and 23 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report, issued January 2025, and revised July 2025.

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DIVISION: 06 00 00—WOOD, PLASTIC, AND COMPOSITES
Section: 06 05 73.13—Fire-Retardant Wood Treatment

REPORT HOLDER:

ARXADA

EVALUATION SUBJECT:

DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Dricon® Tempus fire-retardant-treated wood, described in ICC-ES evaluation report ESR-5556, have also been evaluated for compliance with the code*(s)* noted below.

Applicable code edition*(s)*:

■ *2022 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.

■ *2022 California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Dricon® Tempus fire-retardant-treated wood, described in Sections 2.0 through 7.0 of the evaluation report ESR-5556, complies with CBC Chapters 23, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapter 23, as applicable.

The products have not been evaluated under Chapter 7A for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

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 Dricon Tempus fire-retardant-treated wood, described in Sections 2.0 through 7.0 of the evaluation report ESR-5556, complies with CRC Section R802, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Section R802.

The products have not been evaluated under CRC Section R337 for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

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DIVISION: 06 00 00—WOOOD, PLASTIC, AND COMPOSITES
Section: 06 05 73.13—Fire-Retardant Wood Treatment

REPORT HOLDER:

ARXADA

EVALUATION SUBJECT:

DRICON® TEMPUS FIRE-RETARDANT-TREATED WOOD

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Dricon® Tempus fire-retardant-treated wood, described in ICC-ES evaluation report ESR-5556, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Dricon® Tempus fire-retardant-treated wood, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-5556, complies with the *Florida Building Code—Building and* the *Florida Building Code—Residential*. The design requirements shall 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-5556 for the 2021 *International Building Code®* meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential,* as applicable, with the following conditions:

- Fasteners used in Dricon® Tempus fire-retardant-treated wood must be galvanized steel, stainless steel, silicon bronze or copper, in accordance with *Florida Building Code—Building* Section 2304.10.5.3 and *Florida Building Code—Residential* Section R317.3.3, and must be subject to the design value adjustments indicated in Table 4 of the evaluation report.

Use of the Dricon® Tempus Fire 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). Florida Rule 61G20-3 is applicable to products and/or systems which comprise the building envelope and structural frame for compliance with the structural requirements of the Florida Building Code.

This supplement expires concurrently with the evaluation report, issued January 2025, and revised July 2025.

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