Use and Handling

Flame Tech™ treated FRTW products have the same workability as untreated lumber products, requiring only the same tools and precautions used with regular wood products.

Keep the following guide lines in mind when using and handling Flame Tech™ FRTW products.

1) Flame Tech™ wood should not be installed where it will be exposed to precipitation, direct moisture, or regular condensation.
2) Flame Tech™ wood must never be installed or used in contact with the ground
3) When Storing Flame Tech™ products, the material must be kept off the ground and covered to protect it from moisture and precipitation.
4) The use of galvanized fasteners is required with Flame Tech™ treated wood products.
5) When painting or staining follow the paint or stain manufacture's recommendations. Make sure the surface is clean and dry before application.
6) When using Flame Tech™ FRTW products it is important to utilize the design vale adjustments listed in the guide.

Cutting to length, drilling and diagonal cuts, as well as light sanding are allowed. Exposed areas are not required to be field coated. Ripping dimensional lumber is not allowed.

1) Cutting of Lumber to length (cross-cutting and end cuts) are allowed. Holes and joints are also allowed.
2) Ripping of lumber along the length, such as ripping a 2x4 in to a 2x2 is not allowed. The cutting of a stair stringer is not allowed to be done after the lumber is treated as the effect is similar to ripping.
3) Milling of the lumber is not allowed. All milling and planing must be done before treatment.
4) Cutting of plywood is allowed in any direction without restriction.
5) Light sanding of lumber and plywood is allowed to remove raised grain or to prepare for finishing,
6) Shaping or resurfacing must be done before treatment.
7) End Coating of any approved cut is not required.

Personal Heath and Safety

1) Wear gloves to protect against splinters
2) Wear a dust mask to reduce the inhalation of wood dust
3) Wear appropriate eye protection
4) Wash hands with mild soap and water after working with Flame Tech™ FRTW

Warranty: Flame Tech™ Fire Retardant plywood and lumber are covered by a limited 20 Year Warranty made available upon request.

FLAME TECH™

Fire Retardant Chemical Technologies, LLC

Innovators of high performance fire retardant products

3465 Gribble Road
Matthews, NC 28104
(980) 253-8880
www.flametechspecs.com

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FLAME TECH™

THE NEW STANDARD FOR FIRE RETARDANT TREATED WOOD

Fire Retardant Chemical Technologies, LLC

FLAME TECH™

Certified Wall Assemblies

2 hr Exterior Bearing Wall

(Design No. FRCT/FRWT 120-02)

Max. Tested Load:
100% of Design Load

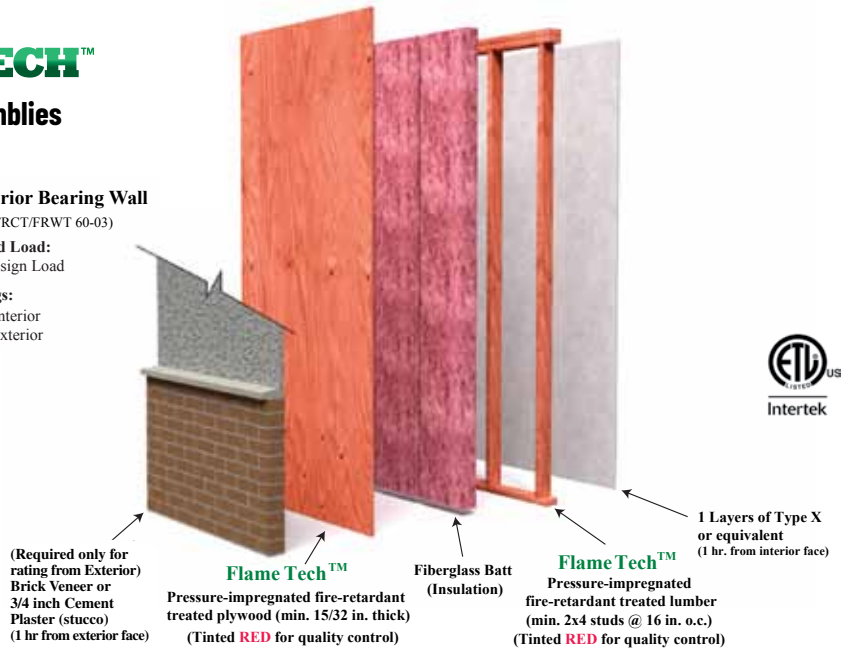
Fire Ratings:
•2 hr from interior
•1 hr from exterior

1 hr Exterior Bearing Wall

(Design No. FRCT/FRWT 60-03)

Max. Tested Load:
100% of Design Load

Fire Ratings:
•1 hr from interior
•1 hr from exterior



Strength Testing

Lumber Treatment Adjustmet Factors for Temperatures up to 100°F (38°C)

Structural Property	SPF	SYP	Doug Fir	Other Species
Bending MOR	0.96	0.82	1.00	0.82
Bending MOE	0.93	0.87	0.99	0.87
Tension Parallel to Grain	1.00	0.98	1.00	0.98
Shear Parallel to Grain	1.00	0.95	1.00	0.95
Compression Parallel to Grain	0.96	0.96	0.96	0.96
Compression Perpendicular to Grain	0.95	0.95	0.95	0.95
Fastener / Connectors	0.90	0.90	0.90	0.90

Treatment Adjustment Factors for ServiceTemperatures < 150°F

Test Standard	Property	SPF			Southern Pine			Douglas Fir		
		1A	1B	2	1A	1B	2	1A	1B	2
ASTM D5664 Proc	Bending MOR	0.91	0.93	0.95	0.81	0.81	0.81	1.00	1.00	1.00
	Bending MOE	0.96	0.96	0.96	0.88	0.88	0.88	1.00	1.00	1.00
	Tension Parallel to Grain	0.93	0.96	0.99	0.93	0.96	0.99	1.00	1.00	1.00
	Shear Parallel to Grain	0.93	0.96	0.99	0.88	0.91	0.94	1.00	1.00	1.00
	Compression Parallel to	0.88	0.91	0.94	0.89	0.92	0.95	0.96	0.96	0.96
	Grain Compression Perp to	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
	Grain Fastener/connectors	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90

(1) Treatment adjustment factors for test data developed in accordance with ASTM D5664 and calculated in accordance with ASTM D6841
(2) Climate Zone Definition
  a. Zone 1 – Minimum design load or maximum ground snow load up to 20 psf.
  b. Zone 1A – South West Arizona, South East Nevada (area bounded by Las Vegas-Yuma-Phoenix-Tucson).
  c. Zone 1B – All other qualifying areas of the Continental United States.
  d. Zone 2 – Minimum ground snow load over 20psf.

Treatment Adjustment Factor per Testing to ASTM D-5516, Calculated to ASTM D-6305

Test Standard	Performance Category	Untreated Span Rating	FlameTech® Treated Plywood Roof Sheathing				Subfloor Span[4] (in.)
			Maximum Span (in.)	Total Allowable Loads[1, 2, 3] (psf) Climate Zone			
				1A	1B	2	
ASTM D5516	15/32, 1/2	32/16	24	29	43	60	16
	19/32, 5/8	40/20	24	49	73	103	20
			32	28	42	88	
	23/32, 3/4	48/24	32	40	60	84	24
			48	18	26	37	
	7/8	60/32	48	30	44	63	-
	1-1/8	60/48	48	30	44	63	-

(1) Load and span ratings developed in accordance with ASTM D5516 and calculated in accordance with ADTM D6305.
(2) All loads are based on two-span condition with strength axis perpendicular to supports.
(3) Panel edge support shall be required for roof sheathing. Panel edge clips when used shall be installed as follows: one midway between supports for 24-inch and 32-inch spans, two at 1/3-points between supports for 48-inch span. Clips must be manufactured for the plywood thickness used.
(4) Fastener size and spacing shall be as required in the applicable building code for untreated plywood of the same thickness.
(5) For low-sloped or flat roofs with membrane or built-up roofing having a perm rating of less than 0.2: use rigid insulation having a minimum R-value of 4.0 between the sheathing and the roofing, or use the next thicker panel than the tabulated for the span and load. (i.e. 19/32" for 24";23/32" for 32"); and use a continuous ceiling air barrier and vapor retarder with a perm rating less than 0.2 on the bottom of the roof framing above the ceiling finish.
(6) Flame Tech treated plywood must not be used as roof sheathing if a radiant shield is used beneath the roof sheathing.
(7) The total allowable load is the sum of the live and dead loads at maximum span.
(8) 15/32" & ½" plywood limited to 4-ply. 19/32" & 5/8" plywood is limited to 4-ply & 5-ply. 23/32" & 23/32" and ¾" plywood is limited to 5-ply & 7-ply.
(9) Uniform load deflection limitations 1/180 of span under live load plus dead load, 1/240 under live load only.
(10) Subfloor is limited to 100 psf. maximum live load.
(11) Climate Zone Definition
  a. Zone 1- Minimum design load or maximum ground snow load up to 20 psf.
  b. Zone 1A – South West Arizona, South East Nevada (area bounded by Las Vegas-Yuma-Phoenix-Tucson).
  c. Zone 1B – All other qualifying areas of the Continental United States.
  d. Zone 2 – Minimum ground snow load over 20psf.