

# Meet codes and get the benefits of wood construction



**Dricon® FRT lumber and plywood are treated to reduce the spread of flames and generation of smoke**

Since 1981, Dricon® fire retardant treated (FRT) wood has performed as intended in countless structures around the world, providing a convenient and economical building alternative. Pressure-treated for protection in the event of a fire, Dricon® FRT wood will not promote flame spread, and generates less smoke, the #1 killer in fires. Model building codes permit Dricon® FRT wood as a substitute for materials classified as noncombustible in many applications. And Dricon® FRT wood offers a 40-year limited roof warranty for builders that covers both materials and labor, plus a 40-year limited preservative warranty for owners and warranty options for truss manufacturers.

**Complies with Model Building Codes**

**40-Year Limited Roof Warranty**

**40-Year Limited Preservative Warranty**

**Truss Manufacturers Limited Warranty**

**Meets Current AWPA Standards**

**EPA-Registered Protection**

**Against Termites & Fungal Decay**



## **Use and Handling:**

Dricon® FR treatment does not substantially change the physical characteristics of ordinary lumber. You should be aware of proper handling and personal hygiene practices, which are much the same as if you were using untreated wood.

Keep the following guidelines in mind when using and handling Dricon® FRT wood:

1. Dricon® FRT wood should not be installed where it will be exposed to precipitation, direct moisture, or regular condensation.
2. Dricon® FRT wood should not be used in contact with the ground.

3. When storing Dricon® FRT wood, the material should be kept off the ground and covered to shield it from precipitation.

4. When painting or staining, the paint or stain manufacturer's recommendations should be followed. As with untreated lumber, the surface should be clean and dry.

5. The same common sense precautions should be taken when handling Dricon® FRT wood as with untreated wood or other building materials. Dust masks and eye protection devices are recommended to avoid possible irritation from sawdust and wood chips. Gloves will help avoid splinters. Hands should be washed after doing construction work.

[www.Dricon.com](http://www.Dricon.com)

## Strength Design Factors for Dricon® Fire Retardant Treated Lumber Compared to Untreated Lumber Applicable at Service Temperatures Up to 150° F (66° C)

Strength Design Factors	Tested Species									Other Species		
	Southern Pine Climate Zone			Douglas Fir Climate Zone			Spruce Climate Zone			Climate Zone		
	1A	1B	2	1A	1B	2	1A	1B	2	1A	1B	2
Compression Parallel, F <sub>c</sub>	0.87	0.89	0.91	0.84	0.86	0.88	0.87	0.89	0.91	0.84	0.86	0.88
Horizontal Shear	0.87	0.89	0.91	0.86	0.88	0.90	0.87	0.89	0.91	0.86	0.88	0.90
Tension Parallel	0.87	0.89	0.91	0.82	0.84	0.86	0.87	0.89	0.91	0.82	0.84	0.86
Bending: Modulus of Elasticity, E	0.94	0.95	0.96	0.94	0.95	0.96	0.94	0.95	0.96	0.94	0.95	0.96
Extreme Fiber Stress, F <sub>b</sub>	0.87	0.89	0.91	0.87	0.89	0.91	0.87	0.89	0.91	0.87	0.89	0.91

### Climate Zone definitions

- 1: Minimum design roof load or maximum ground snow load up to 20 psf  
 A: Southern Arizona, Southeast Nevada (Las Vegas-Yuma-Phoenix-Tucson triangle)  
 B: All other qualifying areas of the continental U.S.  
 2: Minimum ground snow load over 20 psf

<sup>1</sup> Arch Wood Protection does not recommend 5/16 or 3/8 panel thicknesses for roofing applications.

<sup>2</sup> 19/32 and 5/8 thick plywood shall be limited to performance rated 4 or 5 ply. 23/32 and ¾ inch thick plywood shall be limited to performance rated 5 or 7 ply.

For complete information and notes regarding use of this table refer to ESR-1626



## Total Allowable Loads and Spans for Dricon® FRT Plywood Compared to Untreated Plywood Applicable at Service Temperatures Up to 170° F (77° C)

Plywood Panel Thickness	Untreated Span Rating Roof/Subfloor	Dricon® Roof Sheathing Max. Live Load (psf)				Dricon® Subfloor Span Rating (inches)
		Span (inches)	Climate Zone			
			1A	1B	2	
5/16	12/0	12	69	93	126	0
5/16, 3/8 <sup>1</sup>	16/0	16	39	52	71	0
5/16, 3/8 <sup>1</sup>	20/0	20	25	33	45	0
3/8, 1/2	24/0	24	27	36	49	0
15/32, 1/2	32/16	24	38	51	70	16
19/32, 5/8 <sup>2</sup>	32/16	24	60	80	109	16
19/32, 5/8 <sup>2</sup>	32/16	32	34	45	61	16
23/32, 3/4	48/24	32	43	57	77	24
7/8	–	48	24	32	43	–
11/8	–	48	40	53	73	48

### Frequently asked questions about Dricon® FRT wood:

**Does it meet building codes?** Yes. Dricon® FRT wood has been issued an evaluation report signifying compliance with model codes. It's also recognized by other US and international code and regulatory agencies.

**Can it be painted or stained?** Yes. Follow the same procedures you would for painting or staining untreated wood. However, flammability of the finish should be considered before application.

**What species can be treated?** There is a large variety of approved species such as Southern Yellow Pine, Doug Fir, SPF and Hem Fir. For more species details refer to the Dricon® FRT Application Guide.

**Can Dricon® FRT wood be used outdoors?** No. Dricon® FRT wood is intended only for above ground uses where it is kept away from direct moisture and shielded from weather. For exterior applications, use FRX® exterior FRT wood (see www.frxwood.com).

**Is there a reduction in strength compared to untreated wood?** Yes. The treating and drying processes cause a reduction in strength that varies with treatment, species of wood, applications and specific properties. Adjustment factors for Dricon® FRT wood are shown on this sheet.

**What type of fasteners should be used with Dricon® FRT wood?** Galvanized steel hardware is recommended. Although the Dricon® FR treatment does not increase the corrosion of bare steel, the galvanizing process provides an extra margin of safety.

**Can I cut Dricon® FRT wood?** Yes. Cutting lengths, drilling holes, and light sanding are permissible. It is not necessary to field-treat cut ends to maintain the flame spread rating. Most species of Dricon® FRT lumber should not be ripped or milled. Dricon® FRT plywood can be ripped or cross-cut.

**Does Dricon® FRT wood have any special features?** Dricon® FRT wood is pressure treated, backed by a 40-year limited warranty, and registered with the EPA for termite and decay resistance.

## Strength Design Factors for Dricon® FRT Lumber Compared to Untreated Lumber Applicable at Service Temperatures Up to 100° F (38° C)

Strength Design Factors	Tested Species			Other Species
	Southern Pine	Douglas Fir	Spruce	
Compression Parallel, F <sub>c</sub>	0.94	0.91	0.95	0.91
Horizontal Shear	0.95	0.94	0.95	0.94
Tension Parallel	0.92	0.87	0.98	0.87
Bending: Modulus of Elasticity, E	0.98	0.98	0.98	0.98
Extreme Fiber Stress, F <sub>b</sub>	0.89	0.90	0.98	0.89

Dricon® fire retardant or Dricon® FRT wood complies with or has been granted the following:

- AWPAC UC1, UC2, and UCFA
- NYC MEA 200-81-M
- State of Wisconsin
- AWPAC P49 (FR-1)
- Factory Mutual Class I Roof Deck
- QPL
- ICC-ES ESR-1626
- City of Los Angeles (RR 25122)
- All are subject to revision, reexamination.
- EPA Registration (62190-9)
- HUD Materials Release (1261)
- California State Fire Marshal
- NYC MEA 199-81-M

Tests: Dricon® FRT wood has been tested in accordance with the following procedures:

- ASTM D 1413
- ASTM D 5664
- MIL-L-19140
- UL 723
- ASTM D 3201
- ASTM E 84
- NFPA 255
- All are subject to revision, reexamination.
- ASTM D 3345
- ASTM E 162
- NFPA 258
- ASTM D 5516
- Boeing BSS 7239
- NFPA 259