



# Fire Retardant Coatings of Texas®, LLC

4500 Grants Lane, Fort Worth, Texas 76179

Office 817-710-5233

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

Fire Retardant Chemical Manufacturer

## Calculating Fire Resistance Ratings

One method for deriving fire resistance ratings while avoiding expensive fire testing of countless assembly variations is the "Component Additive Method." Also known as CAM, its methodology was developed in the 1960s and has since become familiar and acceptable to many code officials.

## How CAM Works

A review of existing fire testing reports resulted in CAM's "10 Rules" methodology, which combines the resistance ratings of individual components to obtain the fire resistance rating of the assembly.

## Substitution of Values for Untreated Wood

Though values commonly cited for wood components in listed assemblies are typically for untreated wood, it is not ordinarily acceptable to use untreated wood in buildings that require noncombustible construction.

Therefore, in many instances, FX Lumber Guard / FX Lumber Guard XT fire-retardant wood treatment may be substituted to meet the requirements specified by CAM or in specific assemblies described in popular industry sources, such as the Gypsum Association's Fire Resistance Design Manual and the U.S. Department of Agriculture's Wood Handbook.

## Using CAM to Compute an Hourly Rating

The following illustrates how the CAM method calculates an hourly rating in an assembly using: 5/8"

FX Lumber Guard / FX Lumber Guard XT fire-retardant plywood, 2x6 studs 16" on center, and

Rockwool or slag mineral wool batts.

(Note: In this example, listed values for untreated wood, when applied to FX Lumber Guard / FX Lumber Guard XT fire-retardant wood treatment.) This example, and the use of CAM calculations in general, depends on acceptance by code officials with applicable authority.

Check with the appropriate jurisdiction before beginning construction.

### Time

FX Lumber Guard / FX Lumber Guard XT studs 16" on center	15
FX Lumber Guard / FX Lumber Guard XT 5/8" CDX SYP	15
Rockwool or slag mineral wool batts weighing not less than 1/4 lb./sq. ft. of wall surface	15
1/2" gypsum board	15

**"It's not always about the sale, but rather doing what's right for our valued customers."**



"Fire Retardant Coatings of Texas" & "FRCT" Logo are federally registered trademarks of Fire Retardant Coatings of Texas®, LLC.