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RE: Fire Rating Classification for Fire Rated Wood Veneer Applications

To meet ASTM E-84, BOCA, ICBO, SBBCI and NFPA requirements, Fire Rated Wood Veneer panels are comprised of Class C components, as requested by a specifier to meet, or exceed, restrictions where fire retardant surface materials are required.

Our Marlite panels consist of the following series of three basic layers.

1 The Panel Face

The exposed surface is a layer of hardwood veneer that measures between .010" and .015", with a catalyzed finish of approx. .003", totaling .013" to .018" for the face material.

2 The Panel Substrate

The substrate is an ASTM E-84 rated Class C wood fiber product (MDF) that measures .750" .

3 The Panel Backer

The balancing backer is a hardwood veneer that measures between .015" and .025".

Strict interpretation of the ASTM E-84 fire rating applies only to the surface burning characteristics of the panel and not to those materials that make up the balance of the panel. Fire Rated Wood Veneer panels and trim are intended to provide a Class C fire rated application only and are not intended to be used to create fire rated demising wall construction. In any case, as there are often questions raised concerning the flame spread and categorizing of each individual layer of the system, I will address each layer in turn.

Item 1 - The Panel Face

The panel face consists of a material that is less than 1/28" (.0357") thick and does not contribute to or pose an unusual hazard. This allows an exemption for the face material according to the ICBO - Uniform Building Code. Due to this exemption, the substrate material must be rated to the local code requirements for a particular installation.

Item 2 - The Panel Substrate

Due to the exemption allowance provided for materials of less than 1/28" (.0357"), the substrate upon which the face material is applied must carry a fire rating as required by local code for a particular installation. Marlite's Fire Rated wood veneer panels use an ASTM E-84, Class C rated wood fiber substrate (MDF) that carries a rating as follows;

Flame spread	195
Smoke Developed	185

The ASTM E-84 fire rating for a Class C material requires a flame spread of 200 or less along with a smoke development maximum of 450.

Item 3 - The Panel Backer

According to all current U.S. building fire rating codes the Class C fire rating is pertinent only to the surface burning characteristics of the applied materials, therefore the panel backer is not subject to scrutiny within a Class C applied material rating. That being said, the panel backer would still fall within the exemption outlined for finishes less than 1/28" (.0357") thickness that do not contribute to or pose an unusual additional hazard.

Sincerely,

Don Sweitzer

Don Sweitzer
Technical Support Manager