



February 1, 2022

Attn: Mr. David Paulo Sr.
Fire Retardant Coatings of Texas, LLC
1150 Blue Mound Road West #403
Haslet, TX 76052

817-710-5233

RE: FX Lumber Guard/FX Lumber Guard XT Validity
As a Fire Retardant for Application of The
Building Code 2018 of Pennsylvania and the
Adopted International Residential Code, IRC 2018,
With Amendments Section 302.13 and the Adopted
International Building Code, IBC 2018,
Section 2303.2 for State of Pennsylvania

SEI Project No.: 22020.00

Dear Mr. Paulo:

Upon the request by Fire Retardant Coatings of Texas, LLC (FRCT), Structural Enginuity, Inc. (SEI) reviewed the product test reports by the certified testing agency Intertek of the FX Lumber Guard and FX Lumber Guard XT fire retardant products in order to determine if the use of the FX Lumber Guard and FX Lumber Guard XT product is in compliance with the governing building code as an alternate material and method in providing an equivalent fire resistance rating for an I-Joist or sawn lumber 2x floor assembly application to other currently approved materials for fire retardant treatment in the State of Pennsylvania. Per SEI's review of the following certified licensed testing agency Intertek's test reports (which test per ASTM E2788 for plywood and lumber, ASTM E84 and ASTM E119), it is SEI's professional opinion that the use of FX Lumber Guard/FX Lumber Guard XT products is in compliance with IRC 2018, Section 302.13 "Fire Protection of Floors", Exception 4 that states, "Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance."

In addition, Per IBC 2018, Section 2303.2, "Fire-retardant-treated wood" it states that, "Fire-retardant-treated wood is any wood product that, when impregnated with chemicals by a pressure process or other means during manufacturer, shall have, when tested in accordance with ASTM E84 or UL 723, a listed flame spread index of 25 or less and show no evidence of significant progressive combustion when the test is continued for an additional 20-minute period. Additionally, the flame front shall not progress more than 10 ½ feet (3200 mm) beyond the centerline of the burners at any time during the test." In addition, IBC 2018, section 2303.2.3 "Testing" states that "treatment shall provide permanent protection to all surfaces of the wood product" and clarifies that the use of paints, coating, stains or other surface treatments is not an approved method of protection as required in this section." It is further understood that ICC recognized FX Lumber Guard/FX Lumber Guard XT to be a Fire Retardant Penetrant and not a coating as of March of 2021.


Based on the information noted above and documents listed below, it is SEI's professional opinion that FRCT's FX Lumber Guard and FX Lumber Guard XT are a valid alternative product to be used for fire retarded treatment of I-joists and sawn lumber floor construction per the governing Building Code 2018 of Pennsylvania if applied in conformance with the manufacturer's specifications and guidelines.

Documents provided to SEI for Review:

- INTERTEK – ASTM E2768-11 Testing on FX Lumber Guard/FX Lumber Guard XT Applied to OSB – Rpt No. 103265317SAT-010 Rev1 – 4/25/18 and Rev. 5/8/18
- INTERTEK – ASTM E2768-11 Testing on FX Lumber Guard/FX Lumber Guard XT Applied to Plywood – Rpt No. 10326531SAT-012 Rev1 – 4/24/18 and Rev. 5/8/18
- INTERTEK – Rpt No. 102317918SAT-001B - ASTM E2768-11 Testing on FX Lumber Guard/FX Lumber Guard XT Applied to Southern Yellow Pine Lumber – 2/29/16
- INTERTEK – Rpt No. 101095500SAT-001A - ASTM E84 Testing on FX Lumber Guard/FX Lumber Guard XT Applied to TJI Floor and Ceiling Joists and OSB – 3/13/13
- INTERTEK – Rpt No. 101567661SAT-001_Rev2 - ASTM E119-12a Testing on FX Lumber Guard/FX Lumber Guard XT Applied to I-Joist Floor and Ceiling Assemblies – 6/27/14 and Revised on 8/4/14
- ICC-ES Evaluation Report – ESR-3872, Reissued 10/2021
- ICC-ES Listing Report – ESL-1087, Reissued 10/2021

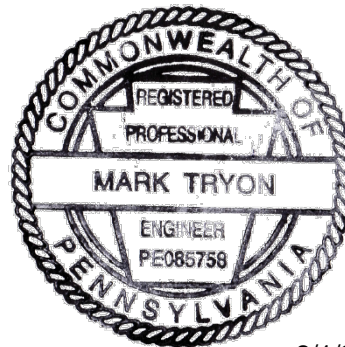
The above noted documents can be provided by FRCT for reference. Please feel free to contact our office should you have any questions relating to this matter.

Sincerely,



Mark A. Tryon, P.E.
Vice-President/Founder
mtryon@structuralenginuityinc.com

Structural Enginuity Inc.



2/1/2021