

**Part 1 General****1.1 Summary**

- .1 This Section includes requirements for supply and installation of intumescent fire protection for wood & Gypsum Board, meeting the requirements of building codes, insurance rating organizations, and authorities having jurisdiction.

**1.2 Related Requirements**

- .1 Section 06 05 73 – Wood Treatment
- .2 Section 06 20 00 – Finish Carpentry
- .3 Section 09 90 00 – Paining and Coating

**1.3 Reference Standards**

- .1 American Society for Testing and Materials (ASTM):
  - .1 ASTM E84 - 09, Standard Test Method for Surface Burning Characteristics of Building Materials.
  - .2 ASTM E119, Fire Endurance Test of Building Construction and Material.
- .2 Underwriters Laboratories of Canada
  - .1 CAN/ULC S101, Fire Endurance Test of Building Construction and Material.
  - .2 CAN/ULC S102 – 18, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

**1.4 Administrative Requirements**

- .1 Preconstruction Meetings: Arrange for a preconstruction meeting to confirm installation methods and materials in accordance with [Section 01 31 19 – Project Meetings], attended by [Constructor], installing [Subcontractor], Consultant and Owner.

**1.5 Submittals**

- .1 Provide required information in accordance with [Section 01 33 00 – Submittal Procedures].
- .2 Action Submittals: Provide the following submittals before starting any work of this Section:
  - .1 Product Data: Submit copies of manufacturer's product literature indicating specified materials, including listing of accessory materials required for complete installation and manufacturer's written installation instructions.
  - .2 Manufacturer's certification that the minimum performance standards can be met and test reports supplied as requested.

## 1.6 Quality Assurance

- .1 Installation: Verify wood surfaces have been properly prepared, and install intumescent coatings in accordance with manufacturer's written recommendations published in their product technical literature and/or provided by manufacturer.

## 1.7 Delivery, Storage and Handling

- .1 Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- .2 Storage and Handling Requirements: **Do Not Freeze** Store materials in a clean, dry area in accordance with manufacturer's instructions; protect materials during handling and application to prevent damage or contamination.

## 1.8 Site Conditions

- .1 Temperature: Maintain temperature of steel substrates and ambient air to a minimum of 10 degrees C (50 degrees F) during application and for 72 hours after application in accordance with Manufacturer's written instructions.
- .2 Ventilation: Provide a minimum of 4 air changes per hour during application and curing of fire retardant coating.
- .3 Relative Humidity: Limit relative humidity to a maximum of 85% RH during application and drying of intumescent coatings.

## Part 2 Products

### 2.1 Manufacturers

- .1 Acceptable Manufacturer: Quantum Chemical, 780 458 3355, 15 Riel Drive, St. Albert, Alberta, Canada, T8N 3Z2. [No substitutions] [Substitutions accepted as follows:].
  - .1 Substitutions: Consultant may consider additional manufacturers having similar products to Acceptable Products Manufacturers listed above provided they submit requests for substitution in accordance with Section 01 25 00 – Substitution Procedures before starting any work of this Section:
    - .1 Do not use substitute materials to establish Bid Price.
    - .2 Substitutions that appear as a part of the project without review and acceptance by the Consultant will be rejected, and replaced with one of the specified materials.

### 2.2 Performance Requirements

- .1 Provide Intumescent fire retardant coating meeting Class A Flame Spread and Smoke Developed Rating, tested Intertek Testing Services NA Ltd. or another certified, independent testing laboratory.
- .2 Provide Intumescent fire retardant coating in compliance with all drawings and specifications and the following performance criteria:
  - .1 ASTM E84/CAN/ULC S102, Class A Flame Spread and Smoke Developed Index of 20 or less. (SafeCoat® Latex applied at 150 sq. ft. per gallon) on Douglas Fir Lumber, SPF Plywood, and Oriented Strand Board.

- .2 ASTM E119/ CAN/ULC S101 of 17 minutes on 3/8" OSB Sheathing (SafeCoat® Latex applied at 160 sq. ft. per gallon)
- .3 VOC Content: 0.2 lbs/USG, 25 g/l.
- .4 Percent Solids by Volume 47%.
- .3 Basis-of-Design Product: SafeCoat® Latex, Quantum Chemical, 780 458 3355, [www.quantumchemical.com](http://www.quantumchemical.com)

### **Part 3 Execution**

#### **3.1 Preparation**

- .1 Surface Preparation: provide clean, dry surface free of contamination.
- .2 Provide drop cloths, masking, or other satisfactory protection for surfaces not to receive coating to prevent damage from overspray.

#### **3.2 Installation**

- .1 Comply with manufacturer's current instructions for equipment and application procedures.
- .2 Apply fire retardant intumescent coating at 10.7 mil wet film thickness, 5.0 mil dry film thickness (150 sq. ft./gallon).
- .3 Provide a uniform finish matching system description submitted with Product Data

#### **3.3 Site Quality Control**

- .1 Site Quality Control Reporting: Submit a signed "Quality Control Report for SafeCoat® Products" available from Quantum Chemical, or a signed project summary report on the Quantum QA App available from Quantum Chemical.

#### **3.4 Closeout Activities**

- .1 Protection
  - .1 Areas subject to overspray that are to remain permanently exposed as detailed on the drawing, must be protected to prevent contact with coating.

**END OF SECTION**