



SafeCoat[®] Latex Fire Resistance Rated Assemblies

DESCRIPTION

SafeCoat[®] Latex Intumescent Coating is a single-component intumescent fire retardant coating suited for interior applications on various combustible substrates including SPF Plywood (Spruce/Pine/Fir), Oriented Strand Board (OSB), wood trusses and rough stud construction, where Flame Spread Ratings of 25 or less ("Class A" or Class 1) and low Smoke Developed Ratings are required as tested under **ASTM E84** and **CAN/ULC S102** standards.

SafeCoat[®] Latex has also been tested on various floor, ceiling, and wall assemblies for Fire Resistance to the **ASTM E-119 Floor/Ceiling, NFPA 251** and **CAN/ULC S101**. It also satisfies the code requirements for the **CAN/ULC S-101** and **CAN/ULC S-102** on 3/8" OSB for the Edmonton and Calgary residential sidewall market that would carry a stamped Mineral and Fibre Board Listing when applied by a certified applicator in a controlled environment.

USES

- Imparts a Class A Flame Spread Rating to dimensional lumber, plywood and Oriented Strand Board (OSB)
- Replaces sprinklers in combustible concealed spaces, under NFPA-13
- Can be applied as a mandatory upgrade to assist owners and property managers to meet the latest fire and building code requirements or as a voluntary upgrade to lower fire risks
- 17-minute fire resistance on 3/8" OSB sheathing
- Used in lieu of drywall on plywood and OSB which provide greater strength and resilience than drywall

FEATURES

- **Non-toxic:** contains no asbestos, harmful ingredients, halogens or solvents and has low VOCs
- **Cost-effective:** applied at 150 sq. ft. per gallon to achieve a "Class A" flame spread rating
- **Fire-resistance:** tested floor/ceiling/wall assemblies
- Under fire conditions, forms a char, preventing the spread of flames, and slowing the penetration of heat through the substrate
- Has excellent **adhesion** and **durability**
- **Tintable:** latex based "universal tints"
- **Easy to use:** spray, brush, or roller applied

PROPERTIES

Coating Type	Latex
Finish	White, flat finish
Color	Standard: White Special Order: Black
Tinting	May be tinted (lighter colors achieved) Use standard latex or universal colorants. Do not exceed 26 mL of tint per liter of SafeCoat[®] Latex .
Specific Gravity	10.9 lbs/US Gallon or 1.30 g/mL
Solids by Weight	58%
Solids by Volume	47%
VOC	25 g/l or 0.2 lbs/USG
Dry Time	Touch: 30 min. to 1 hour (varies with temperature and humidity) Recoat: 1 to 2 hours Full cure: 48 hours
Film Thickness	Wood Wet: 10.7 mils (150 sq. ft./gallon) Dry: 5.0 mils Foam and OSB Thermal Barrier Wet: 21 mils (80 sq. ft./gallon) Dry: 10 mils (Not for use directly on foam as the OSB provides the required thermal barrier required by Code)
Flash Point	No Flash
Storage Limits	Keep from freezing (above 50° F, 10°C required)
Shelf Life	24 months
Packaging	Available in one, five, 55 and 275 US gallon quantities



Quantum Chemical

SafeCoat[®]
Fire Retardant Coatings
Fire Protection Simplified!

APPLICATION INSTRUCTIONS

Surface Preparation

All surface preparation should be carried out in accordance with good painting practices. Remove all loose, peeling or powdery paint, dirt, grease, oil, wax and other foreign material with a suitable cleaner and allow to thoroughly dry. Repair cracks, holes and surface imperfections and dull smooth or glossy surfaces with sandpaper. For optimum aesthetics, prevent tannin staining from new wood surfaces by applying a latex stain blocking primer recommended by the distributor for this purpose. This is particularly recommended when coating Oriented Strand Board (OSB).

Application

SafeCoat[®] **Latex** can be applied by brush, roller or airless sprayer. Airless equipment is most desirable. Use Graco Model 450 or larger or other long-stroke piston type units or gravity fed diaphragm units. Use a 16 to 21 thousand aperture, with a 12" fan for optimum results. Apply uniformly to entire surface. If thinning is required use clean water only and do not exceed 200 mL per gallon. Surface and ambient temperature must be maintained at greater than 50° F (10°C) during application and must remain so for at least 48 hours following the application. **SafeCoat**[®] **Latex** is intended for interior use only. If the coated substrate will be washed frequently or used in an area of constant high humidity greater than 70%, ONE finish coat of latex paint is required and does not adversely affect the fire performance of the product. Additional coats have not been tested and therefore are not recommended. Consult the distributor for suitable top coats.

A wet film thickness gauge can be used at the start of the application to ensure sufficient **SafeCoat**[®] **Latex** has been applied. At an application rate of 150 sq. ft./USG, the wet film thickness should be 10.7 mil and will yield a dry film thickness of 5.0 mil. If reduced with water, adjust mil thickness accordingly.

The application of **SafeCoat**[®] **Latex** should be uniform and leave no exposed uncoated surfaces or edges. If the lumber is pre-coated it should be checked following installation to ensure that construction procedures have not created any exposed uncoated areas. Touch-up any exposed areas with **SafeCoat**[®] **Latex**.

Clean Up

All application tools can be easily cleaned with water. If product has dried on, use hot soapy water to soften and remove it.

Precautions

SafeCoat[®] **Latex** is not "WHMIS" regulated nor is it subject to the "Transportation of Dangerous Goods Act and Regulations". See SDS for additional information.

CERTIFICATION

Each container bears a label with the following marks:



ULC Listing number is BMQXC.R19565.

PRODUCT WARRANTY

Recommendations for the use of our products are based on tests carried out at government approved labs. Manufacturer and seller are not responsible for results where the product is used under conditions beyond our control. The purchaser of this product must rely on his own judgement in determining suitability for his purpose, and in applying directions as to handling and use. Quantum makes no warranty, expressed or implied, except that if this product proves on inspection to be defective, Quantum will replace such quantity of the product proven to be defective or refund the purchase price of defective product. Labour costs and other consequential damages are hereby excluded. No representative or purported agent of Quantum has the authority to change this warranty. The information contained herein is subject to change without notice. If in doubt, contact your Distributor or Quantum Chemical for current Technical Data Sheets (TDS).



TEST RESULTS

FIRE RESISTANCE RATINGS

Testing conducted in accordance with **CAN/ULC-S101/ASTM E-119-08A**, Fire Endurance Test of Building Construction and Material.

Material	Application Description	Time to Flame Through
3/8" OSB Sheathing	CAN/ULC S101-07 Standard Method of Fire Endurance Tests of Building and Construction Materials. 3/8" OSB Sheathing coated with SafeCoat[®] Latex at 160 sq. feet per gallon.	17 minutes
Floor/Ceiling Assembly with 3/4" OSB	ASTM E-119-05A Floor/ Ceiling; NFPA 251-06, Small Scale Test, and CAN 4-S101-04. 2"x10" nominal SPF floor joists 16" on centre. 3/4" oriented strand board flooring. Underside assembly coated with SafeCoat[®] Latex at 150 sq. ft. per gallon	46 minutes 37 seconds
Floor/Ceiling Assembly with 3/4" OSB and 5/8" Type-X Gypsum	ASTM E-119-05A Floor/ Ceiling; NFPA 251-06, Small Scale Test, and CAN 4-S101-04. 2"x10" nominal SPF floor joists, 16" on centre. 3/4" oriented strand board flooring, 5/8" Type X Gypsum with the exposed side of the gypsum coated with SafeCoat[®] Latex at 150 sq. feet per gallon. There was no flame-through as the test was terminated due to heavy smoke at 1-3/4 hours.	1-3/4 hour
Floor/Ceiling Assembly with 3/4" OSB and 24 Gauge Sheet Metal	CAN/ULC S101 Closed Floor/Ceiling Assembly with 3/4" OSB and 24-Gauge Sheet Metal Ceiling coated with SafeCoat[®] Latex at 150 sq. ft. per gallon. Test was terminated at 60 minutes with no failure.	1 hour
1/2" Regular Gypsum Wall Assembly	CAN/ULC S101-07 Standard Test Method for Fire Tests of Building Construction and Materials. Assembly consisted of 1/2" drywall; 2x4 wood stud frame; unbacked horizontal seam taped and mudded; 3.5" thick R-12 fibreglass insulation; and SafeCoat[®] Latex applied at 100 sq. ft. per gallon. The assembly met burn-through and temperature rise requirements for 63 minutes.	63 minutes