



PRODUCT DESCRIPTION

SafeCoat Clear Fire Retardant Coating is a two-component, VOC free, intumescent clear coating designed for application to wood surfaces where a Flame Spread Rating of 25 or less (Class A) is required. **SafeCoat Clear** limits the spread of flame by expanding and forming a char when exposed to heat. The expanded char insulates the wood from heat and reduces the oxygen available to the wood surface.

SafeCoat Clear is suitable for interior applications requiring a Flame Spread Rating of 25 when tested in accordance with the **CAN/ULC S-102**, and a Flame Spread Rating of 15 (Class A) when tested to the **ASTM E-84-09**.

SafeCoat Clear dries to a satin-matte finish. This is a specialty product designed for fire resistance and is not a typical wood varnish or lacquer. It won't provide a hard flawless finish and may be unsuitable for some applications such as some high traffic areas, (can scratch easily) or where a flawless fine finish is required.

FEATURES

- industrial, commercial, or residential clear **interior** wood product where fire protection is required
- labour saving - when sprayed this can typically be applied in one 8 mil coat or two 4 mil coats - do NOT top coat as this would affect the flame spread rating
- high solids - 0 VOC formula complies with LEED™
- may be applied by brush, roller or airless sprayer.

TECHNICAL DATA and PROPERTIES

	Resin Part A	Iso Part B
Appearance:	Cream color liquid	Clear liquid
Specific Gravity:	1.492	1.199
Viscosity:	21,000 cPs	112 cPs
Solids by Weight:	100%	100%
Solids by Volume:	100%	100%
VOC Level:	Zero	Zero
Shelf Life:	12 months	12 months
Mixed Properties:		
Viscosity:	660 cPs	
Pot Life:	3 hours (or less)	
Coverage:	200 sq. ft./gal	18.58 m ² /L
Film Thickness:	Wet: 8.0 mils	Dry: 8.0 mil

The cure mechanism of **SafeCoat Clear** requires the presence of atmospheric humidity. Values listed are based on room temperature and relative humidity of ~70%.

Dry Time: Touch: 2-3 hours; Recoat: 2-3 hours;
Tack Free: 8 hours; Full Cure: 48 hours

APPLICATION INSTRUCTIONS

Proper surface preparation is required. Surface must be clean, dry, and in sound condition, free of all oil, dust, grease, loose particles and rust. A sanding sealer coat should be used on wood to reduce absorption of the **SafeCoat Clear** into the wood, thus maximizing this product and ensuring proper mil thickness on the wood surface. It may also serve to eliminate possible chemical reactions with previously applied products used on the wood. Ensure that any sealer or stain is fully cured to avoid off-gassing and subsequent blistering of this product.

DO NOT sand as this product is too soft. Typically an 8 mil thickness can be achieved in one coat, however, on vertical surfaces two coats applied at 4 mils may be required to avoid runs. DO NOT apply too thick as the product may lose its clarity and appear milky or white. On close inspection the finish will be grainy due to its fire retardant properties.

Mixing: This is a two-component, 2:1 system. First, mix **SafeCoat Clear Part A thoroughly** before use. Combine **two parts A** and **one part B** by volume. Use care when mixing to avoid incorporation of air. Mixing these two components should take no more than 1-1/2 minutes. Mix only the volume used within the pot-life and workable application time. Apply by brush, roller, or spray. Recommended Brush: as used for polyurethane stains [heavy-duty]. Rollers: 18" epoxy. Spray: air-assisted airless, or airless with 14-16 thou tip.) **FLUSH LINES** with non-alcohol based product. ANY water in the lines or gun will catalyze the product. To adjust viscosity use SafeCoat Clear Reducer or Xylene ~10% to maximum of 20%.) Clean with a non-alcohol based paint thinner such as Xylene or Acetone.

AVAILABILITY

SafeCoat Clear is packaged in 3 gallon kits (2 gallons of Resin (Part A) and 1 gallon of Iso (Part B) and 15 gallon kits (2 pails Part A and 1 pail of Part B).

STORAGE

Store in a cool and dry place for product integrity. Store in tightly sealed containers to protect from moisture and foreign materials. Moisture contamination will result in significant reduction in pot-life.



TEST RESULTS

FLAME SPREAD INDEX

Testing of **SafeCoat Clear Fire Retardant Coating** applied to a Douglas Fir substrate for compliance with the applicable requirements of the following criteria: **CAN/ULC S102-07; Method of Test for Surface Burning Characteristics of Building Materials and Assemblies** and **ASTM E-84-09; Standard Test Method for Surface Burning Characteristics of Materials**. Testing was completed by **Intertek Testing Services NA LTD.**, a certified, independent testing laboratory.

Samples were randomly selected by an Intertek representative at the Quantum Group manufacturing facility and received at the Intertek Evaluation Center. The subject test specimen is a traceable sample selected from the manufacturer's facility. Intertek selected the specimen and verified the composition, manufacturing techniques and quality assurance procedures.

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 Quantum Representative for current Technical Data Sheets (TDS).

*Approximate values only. Should not be considered specifications.
 This data sheet is intended for general information only.
 Updated: October, 2012.

RESULTS and OBSERVATIONS

The samples of **SafeCoat Clear** applied to a Douglas Fir substrate, exhibited the following flame spread characteristics when tested in accordance with **CAN/ULC S102-07; Method of Test for Surface Burning Characteristics of Building Materials and Assemblies**.

A series of three test runs of each material was conducted to conform to the requirements of the National Building Code of Canada.

SafeCoat Clear was applied at a rate of 200 sq. ft. per gallon, 8 mils wet, 8 mils dry. It was applied to finger jointed Douglas Fir wood panels.

Sample Material	FSR*	SDC**
SafeCoat Clear applied to Douglas Fir substrate	25	200

* FSR - Flame Spread Rating

**SDC - Smoke Developed Classification

The sample of **SafeCoat Clear** applied to a Douglas Fir substrate, exhibited the following flame spread characteristics when tested in accordance with **ASTM E-84-09; Standard Test Method for Surface Burning Characteristics of Materials**.

One test run of **SafeCoat Clear** was applied at a rate of 200 sq. ft. per gallon, 8 mils wet, 8 mils dry. It was applied to a finger jointed Douglas Fir wood panel.

Sample Material	FSR*	SDC**
SafeCoat Clear applied to Douglas Fir substrate	15	250

* FSR - Flame Spread Rating

**SDC - Smoke Developed Classification

