



**E**AGLE  
**S**PECIALIZED  
**C**OATINGS  
**A**ND  
**P**ROTECTED  
**E**NVIRONMENTS

A Division of DW Pearce Enterprises Ltd. (1979)

# SafeCoat® Clear Fire Retardant Coating

## 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 to many times its original thickness 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 interior and exterior wood where fire protection is required, while maintaining the beauty of natural wood
- meets flame spread for a wide range of applications
- labour saving - typically applied in one 8 mil coat or two 4 mil coats - no top coat required
- a sanding sealer coat may be used on porous wood to reduce absorption of the **SafeCoat Clear** into the wood and ensure the proper 8 mil thickness of coating on the wood surface is achieved
- high solids - 0 VOC formula complies with LEED™
- may be applied by brush, roller or airless sprayer.

## 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.

## 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 of Resin (Part A) and 1 pail of Iso Part B). **SafeCoat Clear Reducer** is packaged in single gallon cans and 5 gallon pails.

## TECHNICAL DATA and PROPERTIES

	<b>Resin Part A</b>	<b>Iso Part B</b>
<b>Appearance:</b>	Cream color liquid	Clear liquid
<b>Specific Gravity:</b>	1.492	1.199
<b>Viscosity:</b>	21,000 cPs	112 cPs
<b>Solids by Weight:</b>	100%	100%
<b>Solids by Volume:</b>	100%	100%
<b>VOC Level:</b>	Zero	Zero
<b>Shelf Life:</b>	12 months	12 months

### Mixed Properties:

<b>Viscosity:</b>	660 cPs	
<b>Pot Life:</b>	3 hours (or less)	
<b>Coverage:</b>	200 sq. ft./gal	18.58 m <sup>2</sup> /L
<b>Film Thickness:</b>	Wet: 8.0 mils	Dry: 8.0 mil

The cure mechanism of **SafeCoat Clear** requires the presence of atmospheric humidity. The values listed below 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

Prior to application, proper surface preparation is required. Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, loose particles and rust. A sanding sealer coat may 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. Any sealer or stain must be fully cured to eliminate off-gassing and possible blistering of this product. This product is too soft to sand. 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 achieve a suitable finish. On close inspection this finish isn't completely smooth 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. Can be applied by brush, roller, or spray. (Brush: recommended for polyurethane stains [heavy-duty]. Rollers: 18" epoxy. Spray: air-assisted airless, or airless with 14-16 thou tip.) To adjust viscosity use **SafeCoat Clear Reducer** or Xylene ~10% to maximum of 20%.) Clean up with a non-alcohol based paint thinner such as Xylene or Acetone.



# SafeCoat<sup>®</sup> Clear Fire Retardant Coating

## 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).

### PRODUCT SAFETY

An MSDS is available from Quantum Group of Companies.

\*Approximate values only. Should not be considered specifications.  
This data sheet is intended for general information only.  
Updated: March, 2011.

### 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

