

## Selection & Specification Data

<b>Generic Type</b>	A single component, water based, intumescent fire resistive coating which is applied directly to interior wood substrates.
<b>Description</b>	Thermo-Lag <sup>®</sup> 220 is designed to limit the spread of flame across interior wood substrates.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Class A fire hazard classification from ASTM E84 testing at Underwriter's Laboratories, Inc.</li> <li>• Durable finish - provides a hard, durable finish resistant to normal wear</li> <li>• Thin film coating</li> <li>• VOC compliant</li> <li>• Easy repair - if damaged, it can be repaired easily using a brush or roller</li> </ul>
<b>Color</b>	Antique White
<b>Finish</b>	Flat
<b>Primers</b>	No primer required. Thermo-Lag <sup>®</sup> 220 should be applied directly to a clean wood substrate.
<b>Fireproofing Topcoats</b>	No topcoat required
<b>Wet Film Thickness</b>	Application of two coats at 4 mils (100 microns) wet is recommended.  *During the drying process, the coating will shrink due to the evaporation of water. In order to calculate the wet film thickness required, the following formula can be used: $WFT = (DFT/Volume Solids) \times 100$
<b>Fireproofing Dry Film Thickness</b>	4.5 mils DFT
<b>Solids Content</b>	By Volume 56%
<b>Theoretical Coverage Rates</b>	200 ft <sup>2</sup> at 4.5 mils (112.5 microns)
<b>VOC Values</b>	As Supplied 1.05 lbs/gal (126 g/l)

## Substrates & Surface Preparation

<b>General</b>	All surfaces must be clean, dry and free of oil, grease, dirt, dust or other materials which would impair the bond of Thermo-Lag <sup>®</sup> 220 to the substrate.
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## Mixing & Thinning

<b>Mixer</b>	Use 1/2" electric or air driven drill with a slotted paddle mixer (300 rpm under load).
<b>Mixing</b>	Thermo-Lag <sup>®</sup> 220 must be mixed using a 1/2" electric or air driven drill with a slotted paddle or Jiffy mixer blade. Mix material for a minimum of 5 minutes to achieve the necessary texture required before spraying.
<b>Thinning</b>	Do not thin.

## Application Equipment Guidelines

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

<b>Airless Spray</b>	Use 1.0 gal. per minute electric airless (minimum) to provide an operating pressure of 3000 p.s.i. (320 kg/cm <sup>2</sup> ). Must have 30 mesh inline filter installed. Remove rock catcher from siphon tube.
<b>Spray Gun</b>	Silver Gun with gun swivel, Contractor Gun (with filter removed) or equivalent
<b>Spray Tips</b>	0.015" - 0.017" (Use Graco heavy duty RAC non diffuser tips and housing)
<b>Fan Size</b>	4"-10" (depending on section being sprayed)
<b>Hose Length</b>	150' (45 m)
<b>Material Hose</b>	3/8" I.D. minimum
<b>Whip Hose</b>	1/4" I.D. minimum (optional)

## Application Procedures

<b>Airless Spray</b>	It is recommended to apply two thin coats at 4 mils (112.5 microns) wet rather than one thick coat. The first coat must be dry before applying the second coat.
<b>Application Rates</b>	At an ambient temperature of 70°F (21°C), the following application rates are applicable: 4 mils (100 microns) per coat (wet) 2 coats per day 4 hours of dry time between coats  *Two 4 mils coats (wet) will dry to a final DFT of 4.5 mils to meet a class A rating on Douglas Fir.
<b>Wet Film Thickness</b>	Frequent thickness measurements with a wet film gauge are recommended during the application process to ensure uniform thickness.

## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	70 °F (21 °C)	41 °F (5 °C)	41 °F (5 °C)	0%
Maximum	100 °F (38 °C)	100 °F (38 °C)	105 °F (41 °C)	85%

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Handle	Recoat	Touch
77 °F (25 °C)	24 Hours	4 Hours	4 Hours

Drying Time will vary with temperature and humidity conditions. Air movement and thinner coats will assist drying.

# Thermo-Lag® 220

## Cleanup & Safety

<b>Cleanup</b>	Pump, Gun, Tips and Hoses and mixer should be cleaned at least once per day with water.
<b>Safety</b>	Follow all safety precautions on the Thermo-Lag® 220 Material Safety Data Sheet. It is recommended that personal protective equipment be worn including spray suits, gloves, eye protection and respirators when applying Thermo-Lag® 220.
<b>Overspray</b>	All adjacent and finished surfaces shall be protected from damage and overspray.
<b>Ventilation</b>	In enclosed areas, ventilation shall not be less than 4 complete air exchanges per hour until the material is dry.

## Maintenance

<b>General</b>	Damaged areas should be touched up or repainted by airless spray, brush or roller.
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## Testing / Certification / Listing

<b>Underwriters Laboratories, Inc</b>	Tested in accordance to ASTM E84 at Underwriter's Laboratories, Inc.
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## Packaging, Handling & Storage

<b>Shelf Life</b>	12 Months <small>*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.</small>
<b>Shipping Weight (Approximate)</b>	11 lbs. per gallon
<b>Storage</b>	Store indoors in a dry environment between 32°F - 100°F (0°C - 38°C). Protect from freezing.
<b>Packaging</b>	5 gallons



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