

Pecora XL-Perm^{ULTRA} VP Air, Vapor, and Water Resistive Barrier Coating Application Guidelines at Various Temperatures

The Pecora XL-Perm^{ULTRA} VP fluid applied coating may be successfully applied at various ambient temperatures ranging from 0°F to 100°F. The guidelines published here address roller and spray applications including applying the coating at low temperatures. Applying the XL-Perm^{ULTRA} VP coating will require the following steps prior to the roller or spray application:

- Ensure all surrounding areas are protected from damage during installation of the Pecora XL-Perm^{ULTRA} VP coating.
- Complete all change of plane, seams, static joints and flashing with Pecora XL-Flash Liquid Flashing and Joint Filler before applying Pecora XL-Perm^{ULTRA} VP. When used as a flashing, apply XL-Flash at 20 - 40 wet mils.
 - *Dynamic (moving) joints must be sealed with the Pecora 890NST Silicone Sealant or approved equivalent.*
- For transitions between building components with significant movement use Pecora XL-SPAN transition system.

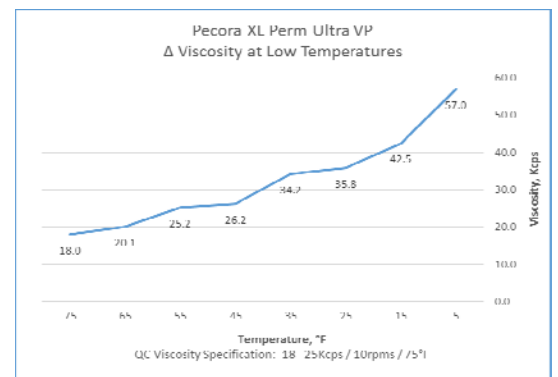
XL-Perm^{ULTRA} VP Coating Installation:

- Pecora XL-Perm^{ULTRA} VP may be applied with a roller or approved airless sprayer (refer to page two for equipment requirements). Coverage rate: 80 – 110 sq ft/gallon
 - Spray apply to exterior wall in a single coat at a minimum 10 - 14 wet mils (8 - 12 DFT) through approved airless spray equipment. Size 517 to 623 spray tip is recommended.
 - Roller apply to exterior wall assembly using vertical strokes with slight diagonal slant.
 - Recommended nap size: Rough surfaces such as CMU = 1/2” to 5/8” depending on porosity. Smooth surfaces such as exterior sheathing = 3/8”.
 - When roller applying, penetrations and changes in plane will require a detail coat of XL-Perm^{ULTRA} VP at 10 -14 wet mils (8 - 12 DFT) prior to full scale roller application.
 - Apply to recommended thickness of 10 - 14 wet mils (8 - 12 DFT).
- Inspect for pinholes, voids or gaps in the membrane and repair as needed.
- Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora XL-Perm^{ULTRA} VP should be dry to touch in one (1) hour.

Low Temperature Applications

The Pecora XL-Perm^{ULTRA} VP air, vapor and water resistive, fluid applied coating utilizes a solvent based, hybrid (STPU) formulation which allows the coating to be successfully applied at a variety of temperatures including below freezing (32°F / 0°C). The following will apply to low temperature applications:

- **Areas to receive coating must be clean, dry and free of frost or any contaminating substances.**
- **Pecora XL-Perm^{ULTRA} VP may be roller applied at ambient temperatures down to 5°F (-18°C).** The adjacent graph illustrates the change in product viscosity as temperature decreases.
- **Pecora XL-Perm^{ULTRA} VP may also be spray applied at low temperatures provided the material conditioning and equipment requirements published on page two are followed.**
- **Low temperatures & relative humidity will reduce the cure rate of moisture cure, fluid applied coatings.** The Pecora XL-Perm^{ULTRA} VP hybrid (STPU) formulation is less sensitive to low temperature / relative humidity than competitive chemistries and will continue to cure at these conditions. See table below for skin times and cure rates at low temperature / relative humidity:



Cure Conditions	Skin Time (Elastomer Formation), Time	Full Cure, Time	Coating Thickness, wet mils
75°F / 50%RH	15 - 20 min	45 - 60 min	10 - 14
10°F / 30%RH	3 - 4 hrs	36 - 48 hrs	10 - 14

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SPRAY EQUIPMENT REQUIREMENTS (>60°F Ambient Temperature)

- **Electric-Powered or Gas Hydraulic Airless Sprayer**
 - Suggested models include, but not limited to, the following:
 - **Graco Ultra Max 695 Electric Airless Sprayer** <http://www.graco.com/us/en/products/contractor/ultra-max-ii-695.html>
 - **Titan Impact 740 Electric Airless Sprayer** <http://www.titantooll.com/product/impactTM-740/>
 - **Graco GH200 Gas Hydraulic Airless Sprayer** <http://www.graco.com/us/en/products/contractor/gh-200-convertible-na.html>
- **Minimum operating pressure:** 3000 PSI
- **Minimum flow rate (delivery):** 0.80 GPM
- **Hose Diameter:** ¼” or 3/8”
- **Recommended airless spray tip:** RAC (Reverse-A-Clean) type
- **Tip size:** 519 (10” fan / 0.019” orifice)
 - Tip sizing can vary and will be dependent on the product temperature/viscosity, desired fan width, and flow rate of pump. Tip sizes can range from: 517 to 623
 - Wider fan patterns and larger orifice sizes will require higher flow rates.
- **Fluid suction hose - DRUM ONLY**
 - Hose will be attached to inlet suction tube in order to siphon coating from 55 gallon drum containers.

SPRAY EQUIPMENT REQUIREMENTS – LOW TEMPERATURES (<60°F Ambient Temperature)

- **Electric-Powered or Gas Hydraulic Airless Sprayer**
 - Suggested models include, but not limited to, the following:
 - **Graco TexSpray Mark V Electric Airless Texture Sprayer**
<http://www.graco.com/us/en/products/contractor/texspray-mark-v.html>
- **Minimum operating pressure:** 3300 PSI
- **Material Conditioning:** **minimum 65°F**
 - Material should be stored in a conditioned space prior to use, if feasible. Drum or plastic pail heater bands may be used during the spray application in order to maintain minimum coating temperature (65°F).
- **Minimum flow rate (delivery):** 1.35 GPM
- **Hose Diameter:** 3/8”
- **Recommended airless spray tip:** RAC (Reverse-A-Clean) type
- **Tip size:** 519 (10” fan / 0.019” orifice)
 - Tip sizing can vary and will be dependent on the product temperature/viscosity, desired fan width, and flow rate of pump. Tip sizes can range from: 517 to 623. Wider fan patterns and larger orifice sizes will require higher flow rates.
- **Fluid suction hose - DRUM ONLY**
 - Hose will be attached to inlet suction tube in order to siphon coating from 55 gallon drum containers.

GENERAL SPRAYING GUIDELINES

- Spray gun should be held approximately 12 inches from the substrate surface.
- Spray gun should be held straight at the surface. Fanning of gun will cause an uneven mil thickness.
- Move the spray gun at a smooth, steady rate. Increase rate if coating is too thick, decrease rate if too thin.
- Spray at lowest pressure required to atomize coating. Slowly increase pressure if fingers/tails are evident in spray pattern.
- 30 – 50% overlap with each pass to ensure total substrate coverage.
- Periodically measure coating thickness with a mil gauge to ensure proper coverage is being achieved.
- **REMOVE SCREENS PRIOR TO SPRAYING.** Screens are typically located in spray gun handle and pump manifold.
- In order to prevent the coating from skinning in the pail during application, mineral spirits or isopropyl alcohol may be poured over the material resulting in a protective layer of solvent. Eight fluid ounces (half pint) will typically suffice. Solvent should be added after the inlet suction tube is placed into the pail.

CLEANING & PURGING

Pecora recommends **100% Isopropyl or 100% Denatured alcohol** solvents for purging all pumps and components as well as cleaning of any tools. Pumps and components should be purged prior to and after spraying the coating. Purging is required at the end of the each work day. Do not allow the coating to dwell in the pump and components for extended periods of time. During any breaks in the work day, it is good practice to protect the spray guns and open pails/drums from ambient moisture by wrapping the spray gun and temporarily sealing any open containers.