

Department of Veterans Affairs JAHVA/Tampa, FL

IPP roofing product demonstration, applications for different roof systems.

These photos show the application processes used to apply IPP products on TPO, EPDM and PVC membranes. The same application process is used when conducting in-house preventative maintenance and sealing any roof issues that cause leaks.

Training demonstration Tampa VAMC: The training demonstration showed application techniques for IPP products being applied to; TPO, EPDM, PVC, and Cap-Sheet membranes. The following pictures show the processes used during the training briefing. These techniques can be used by Maintenance Mechanics or roofing contractors to eliminate roof leaks across any flat roof system.



TPO/EPDM/PVC Pressure wash old membranes using IPP Wash and Prime cleaning solution. This process removes dirt and the oxidized top layer on rubber membranes. The membrane on the right was cleaned prior to applying the rubber emulsion, after curing the top coat will be applied.



Drains/Scuppers/Seams, are the #1 source of leaks and failed membranes.

This picture is a cap-sheet which was coated several years ago with a white acrylic top coat. The drain is boxed in and clogged, causing ponding water. The capsheet and acrylic coating are made from organic compounds and breakdown in water over time and fail. Silicone is an inorganic compound and does not breakdown in water, which is the perfect material for a flat roof.



Rubber asphalt emulsion is used around roof drains and reinforced by embedding fabric into the rubber. Preventative Maintenance at drains will seal the area and prevent roof leaks. Failed drains and seams are the #1 source of roof leaks.

Drain cap/ring removed and cleaned.



Drain coated with rubber emulsion.



DRAINS are encapsulated with a new rubber membrane and reinforcement fabric embedded into the seamless membrane roof system. The final top coat is waterproof, 40mils thick, white UV stable silicone, and drops surface temperatures.



The picture on the left shows an old TPO membrane that requires cleaning before maintenance and repair. The picture on the right shows TPO cleaned around equipment, with IPP Wash & Prime. This provides a surface for rubber emulsion to bond to and build a base coat for the 250HS silicone application.



Cap-Sheet / ModBit

The same application processes used during full roof restoration/replacement, are used when conducting preventative maintenance patches.

Watershed can be used in place of silicone when conducting maintenance repairs. IPP Watershed is a cost effective patch that coats and seals roofing issues while providing a UV stable top coat for the rubber emulsion membrane.

Cap-Sheet Roof: All seams are coated and detail work around equipment and sun-roofs. Seams were treated with 60mils of rubber, then coated with 80mils of rubber emulsion creating a sealed, seamless deck. The capsheet on this deck was old and needed to be completely coated with rubber emulsion providing a brand new roof membrane. Once the primer and 250HS Silicone is applied the thicknesses will be: seams 190mils and deck 130mils thick. (Full SRRS system)



After the seams cure, the entire deck is coated with 80mils of rubber emulsion, sealing the entire roofing envelope. The next step will be to coat the deck with a primer 10-15mils, followed by 40mils of white highly reflective UV stable 250HS Silicone. (Sustainability Goals—FAR 36.104 Policy and CRRC cool roof)



This picture show's the final stages of IPP Silicone Roof Restoration System (SRRS). This provides a brand new roof membrane with a waterproof warranty to ensure decades of use.



Cap-Sheet, cleaned and ready for rubber emulsion applications for seams and detail work around vents.



Seams and exhaust vents are sealed with rubber emulsion and reinforced polyester fabric is embedded into the rubber membrane.



**250HS White Silicone, highly reflective, UV stable, does not break down in ponding water, drops surface temperatures and meets EO/FAR Sustainability Guidelines.
(Energy Reduction, Cost Savings, Heat Island Effect, Construction Waste Reduction)**



**The cap-sheet is now sealed and top coated with 250HS white silicone.
Total square footage can be tracked for agency specific sustainability goals.
LEED Silver, FEMP, DOE-Better Buildings Campaign**



Sustainability Design and Cool Roof Technology

- SustainableDesign@va.gov
- Executive Order: 14005, 14008, 14057
- VA, Office of Construction & Facilities Management, Facilities Standard Alert, Aug 24, 2021: 003C2B-SA-018, Green Building Certification Standard Update
- VA Sustainability Design Manual:
<http://www.cfm.va.gov/til/sustain/dmSustain.pdf>

Section 2.0 General Project Requirements

Section 4.0 Energy

Section 5.0 Water

Section 6.0 Indoor Environmental Quality (Low VOC)

Section 7.0 Environmental Impacts of Materials

Section 7.3 Waste Diversion