An Introduction to Liquid Applied Membranes & Flashings

Rooftop Quality Assurance
Liquid Applied Roofing/Flashings are a specialized group of materials applied in liquid form that harden to form monolithic membranes.
Types of Materials

Single Component or Multi-Component

**Single Component** – one material that reacts to the atmosphere to harden when taken out of its protective enclosure.

**Multi Component** – two or more components, when mixed together, creates a chemical reaction to form a hard membrane.
Single Component Polyurethane Bituminous Flashing
Multi - Component

- Resin
- Catalyst (Hardener)
- The resin is mixed thoroughly; catalyst added depending on temperature and mixed thoroughly.
- Made in small batches
Multi-Component – Installation
Fabric Reinforced

Polyester or Fiberglass fleece is added to the membrane to provide stability and longevity
Areas of Application

- Built-up roofs (not with gravel)
- Modified (mineral cap-sheet) roofs
- Metal surfaces
- Concrete surfaces
- Other substrates as allowed by manufacturer
Steps of Application

- Clean surface & remove laitance
- Patch large holes / screed surface
- Apply surface conditioner/primer
- Measure & cut reinforcement (fleece)
- Apply first coat of catalyzed resin
- Embed Fleece
- Install second coat to fully saturate fleece
Aliphatic Urethanes & Epoxies

.... are a class of elastomeric liquid applied waterproofing membranes installed in multiple “lifts” usually over concrete decks to form a trafficable surface - pedestrian and or vehicle.
What is an Epoxy?

...a synthetic thermoset material formed by “epoxide” polymer groups
What is a Polyurethane?

The repeating linkage of urethane groups comprised of Nitrogen, Oxygen, Hydrogen & Benzene rings?
Installation of Urethanes & Epoxies

- Clean surface and remove laitance
- Patch large holes with a Cementitious product
- Apply Primer
- Install particular products as required by manufacturer
Concrete Surface - Stadium
Silicones

• Gaining popularity in the marketplace.
• 20-year warranties available.
• Can be used over a variety of surfaces such as smooth bur, cap sheets, and foam roofing.
Questions and Discussion