



An Introduction to Liquid Applied Membranes & Flashings

Rooftop Quality Assurance

AIA
Continuing
Education
Provider

**8 IIBEC Continuing Educational Hours
8 AIA Learning Units and HSW Credit**

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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

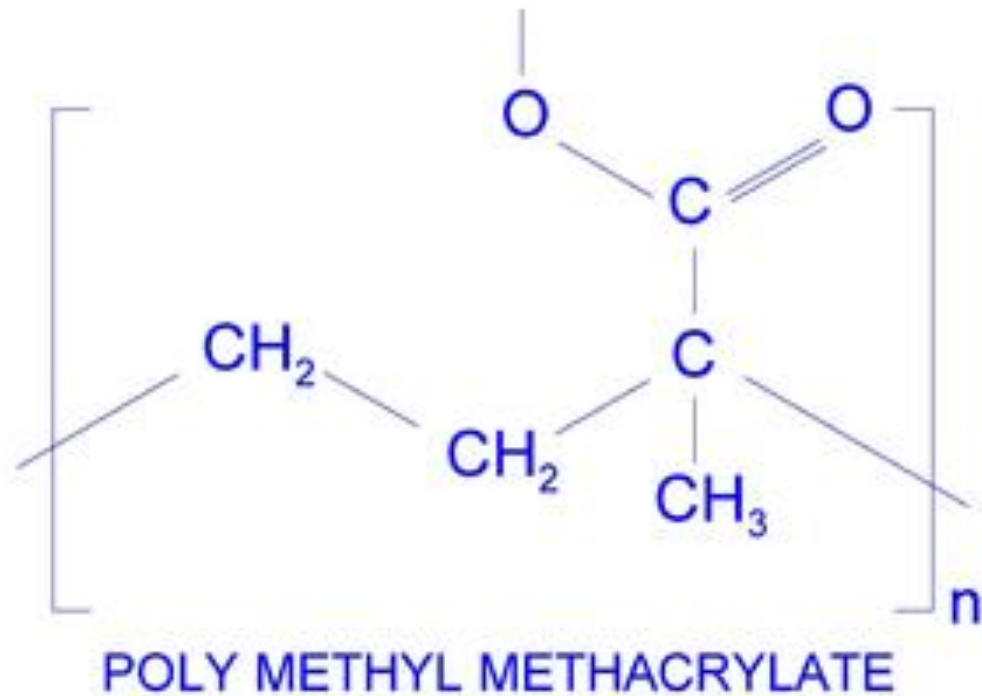
Single Component – one material that reacts to the atmosphere to harden when taken out of its protective enclosure.

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



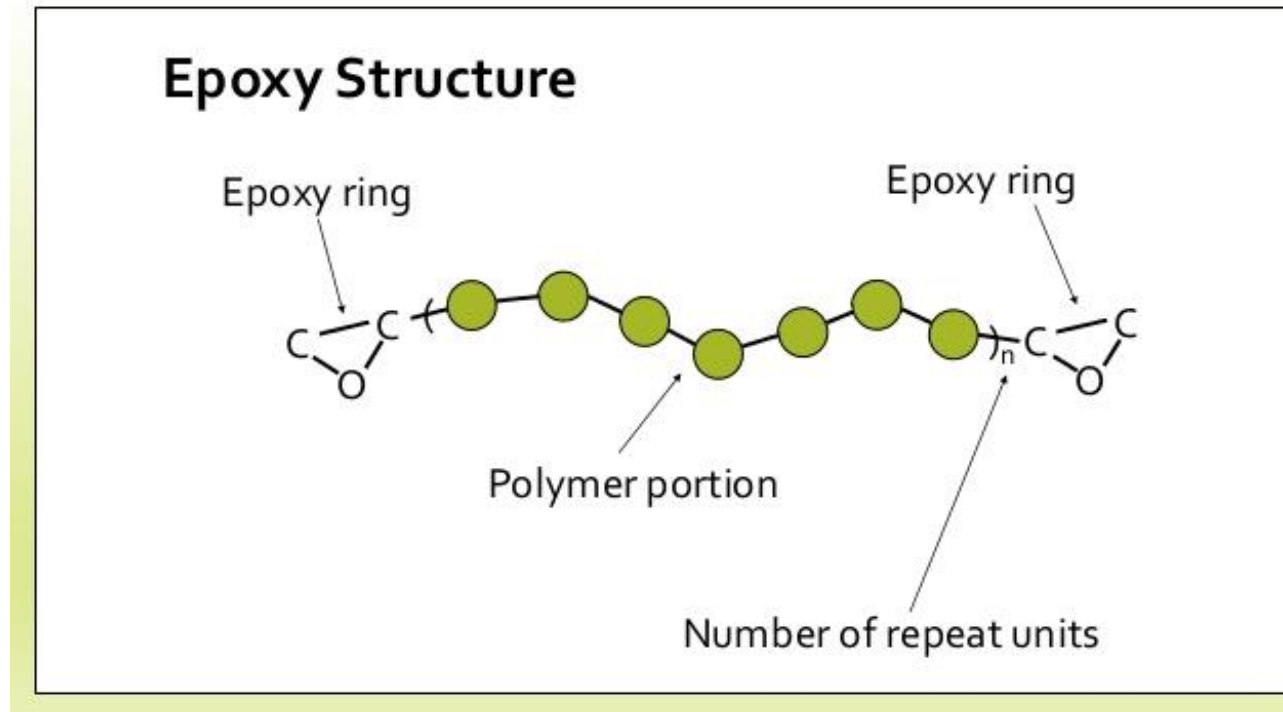
Aliphatic Urethanes & Epoxies

.... 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.



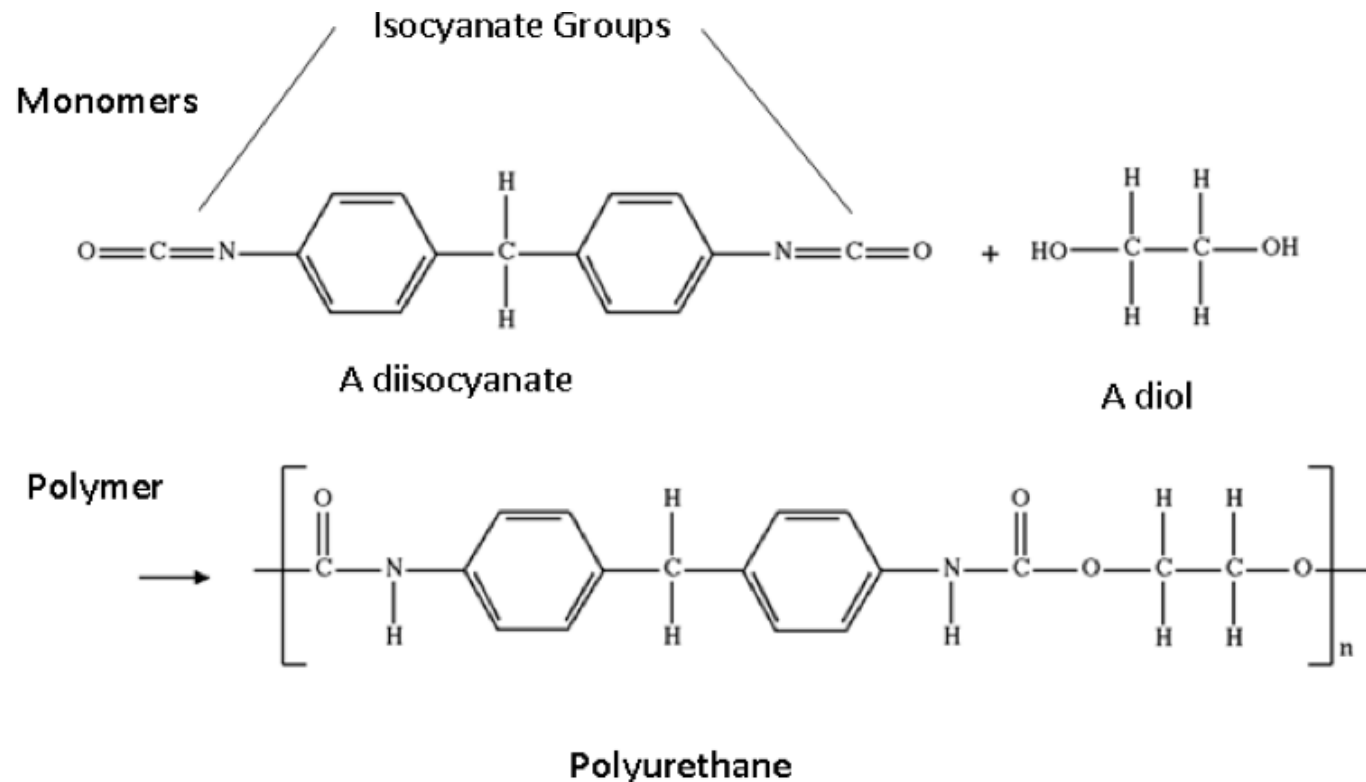
What is an Epoxy?

...a synthetic thermoset material formed by “epoxide” polymer groups



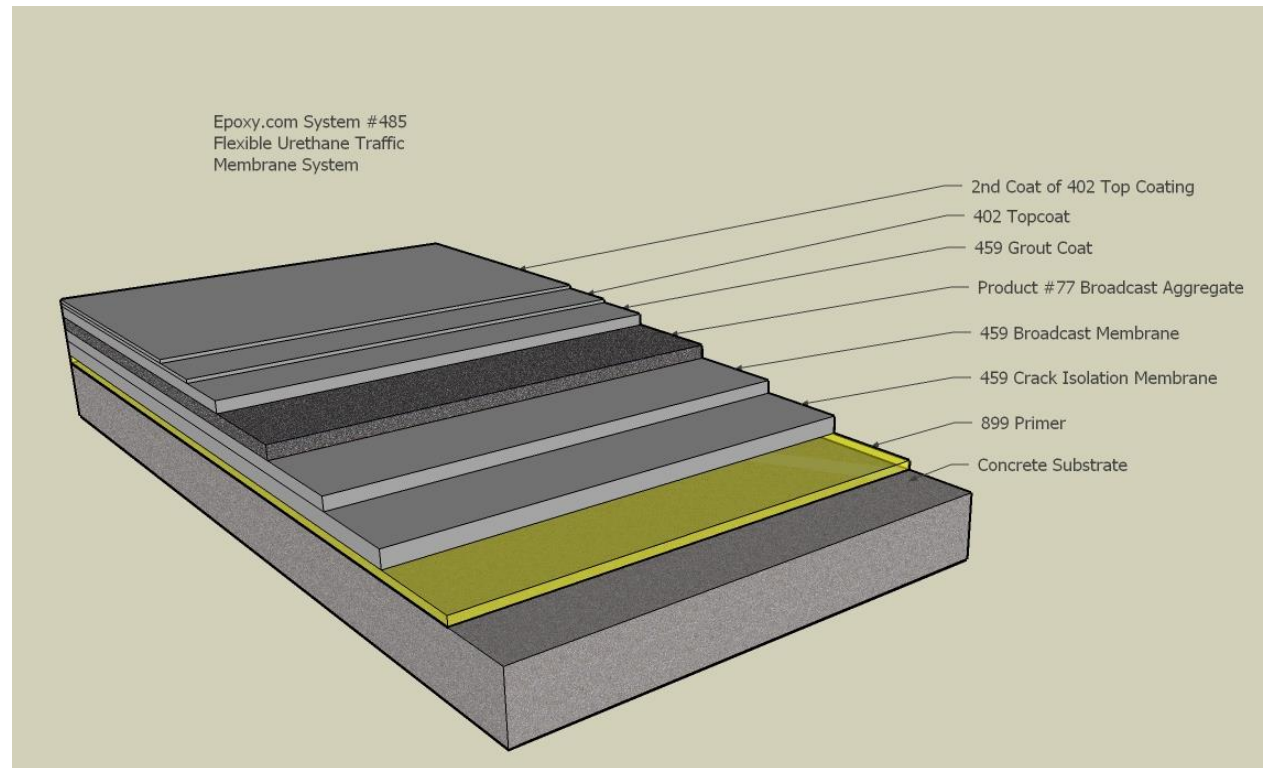
What is a Polyurethane?

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

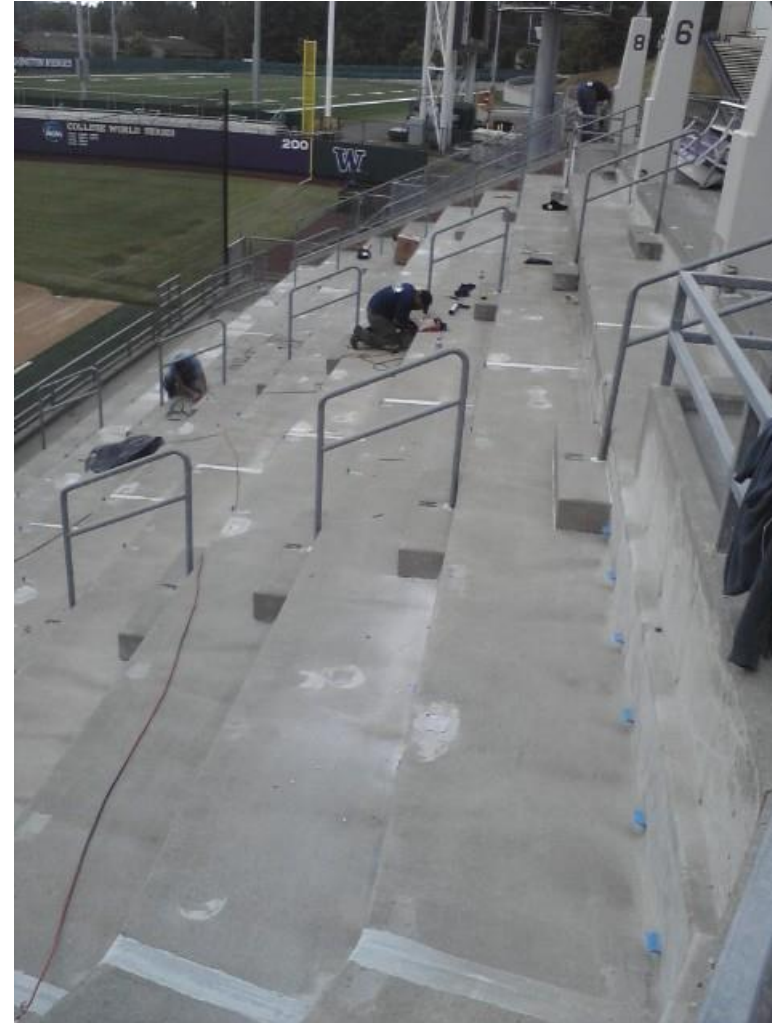


Installation of Urethanes & Epoxies

- 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