



Agenda

- Which membrane is best?
- Types of single ply roof membranes
- Characteristics of single ply roof membranes
 - Durability
 - Ease of installation
 - Versatility
 - Energy saving systems
- Current issues



Which membrane is best?

- It depends
 - Client considerations
 - Building usage
 - Building location
 - Building size
 - Geographical differences
 - New, recover or re-roof?



Client Considerations

- Client preference
- Budget restraints – initial cost
- Service life – life cycle cost
- Insurance requirements - FM Insured?
- Aesthetics
- Maintenance requirements
- Safety requirements
- Construction schedule





Building Usage

- Interior operations
 - Swimming pool, computer room, hospital, finished deck, etc.
- Tenant/occupant requirements
- Anticipated foot traffic/equipment
- Roof top exhaust

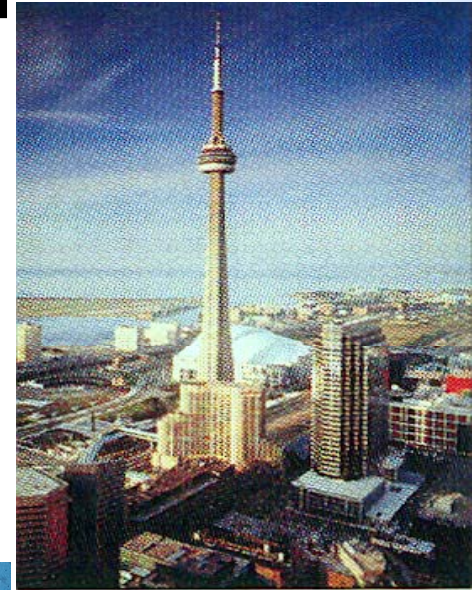


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Building Location

- Access to building
 - Downtown areas, High rise residential, Schools, Courtyard roofs, Interior mall roofs
- Access to roof areas
- Limitations due to environment/weather

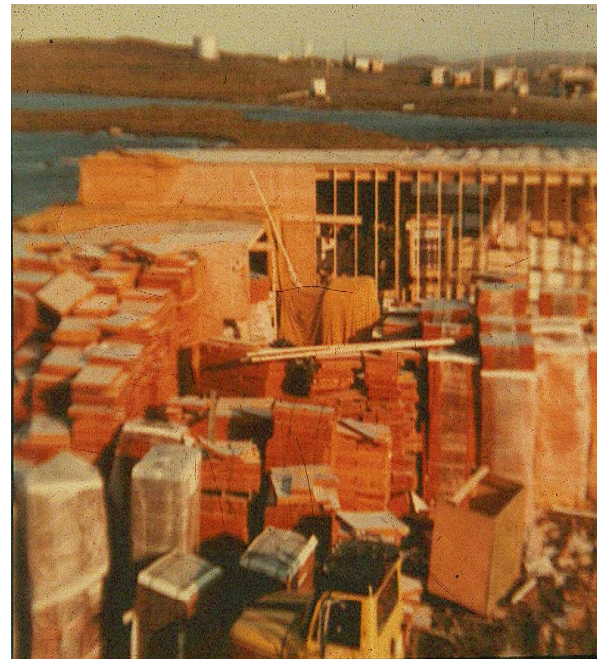


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Building Location (cont'd)

- Material access difficult due to remote location
- Unloading and storage also present difficulties





Geographical Differences

- Contractor skilled in certain systems
- Local availability of materials
- Local preferences & practices
- Local code requirements



Recover/Retrofit

- Moisture in existing roof
- Additional loading
- Economical solution
- Salvage existing dry insulation
- Building/fire code issues



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Re-Roofing

- Remove existing roof down to deck
- Removes all the wet insulation
- Deal with deck damage
- Improve drainage
- Restores roofing integrity
- Guarantee offered



Versus



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Single Ply Membrane Types

- Thermoset
 - EPDM
- Thermoplastic
 - TPO, PVC
- Modified Bitumen
 - APP, SBS

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EPDM Membranes

- Thermoset material
 - Taped seams





EPDM Flashing



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EPDM Membranes

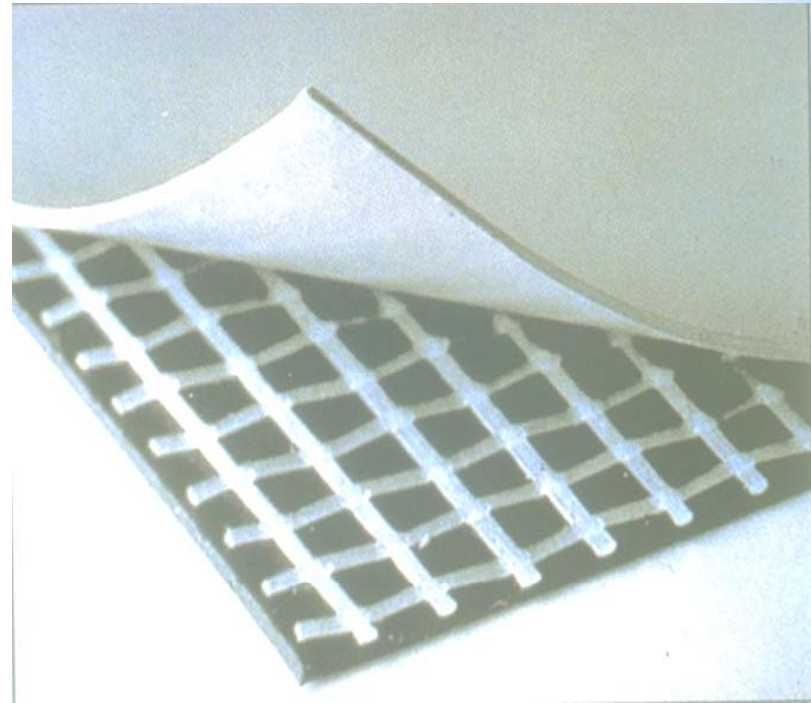


- Normally black in color, but not always.



Thermoplastic Materials

- PVC
- TPO



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Thermoplastic

- Polymers which soften when heated and harden when cooled. This process is reversible provided the material is not heated above the point at which decomposition occurs.



Heat welded seam



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