High Performance Concrete
Permeability Testing
PERMEABILITY

- What is it?
- What effect does it have?
- How do you reduce it?
- How do you test for it?
Permeability: What is it?

- The property or condition of being permeable.
- The rate of flow of a liquid or gas through a porous material.
Permeability: What is it?
Permeability: What effect does it have?
Permeability: How do you reduce it?

- Densification of the cement paste
- Lower w/c ratios
- Fly ash, GGBFS (slag), Micro Silica
Permeability: How do you combat it?

- Reduction of the cement paste
- Reduce cement content
- Uniform aggregate gradation
- Increase travel path – additional cover
Permeability: How do you test for it?

- ASTM C-1202
- AASHTO T-277
- Electrical Indication of Concrete’s Ability to Resist Chloride Ion Penetration
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Questions?