



# AIA HP109

## Continuous Insulation: Energy Efficiency and Performance Comparison of "ci"



PROVIDER K169 Hunter Panels LEARNING UNITS 1 HSW

### LEARNING OBJECTIVES

#### 1 *How and why have insulation materials evolved over time?*

- Evolution occurred in the early 20th century with fibrous materials
- Spurred energy efficiency and conservation efforts in the US and worldwide
- Newer, more efficient materials were developed and their use was expanded
- Legislation resulting from the 1970's energy crisis emerged. The government put forth their first energy policies requiring certain amounts of energy efficiency in buildings. New products came into play with increased energy efficiency performance.

#### 2 *What are some sustainability attributes of various types of "ci" products*

- Insulation EPD comparison
  - Global Warming Potential
  - Eutrophication Potential
  - Smog Creation Potential
  - Acidification Potential
  - Ozone Depletion Potential
  - Primary Energy Demand

#### 3 *What are major Factors that impact installation of "ci"*

- Metal Z-girts
- Types of cladding/insulation attachment options
- Weight of Material and Impacts

#### 4 *How does Air and water performance compare for fibrous vs foam insulations?*

- How often will my wall get wet?
- How does water move in a wall?
- How does air movement affect moisture transfer?
- Performance When Wet

#### 5 *What are some new ideas for simplified design of exterior walls incorporating "ci"*

- Introduce design considerations that:
  - Embrace critical elements of air, moisture and thermal management for modern, energy efficient walls
  - Integrate greater simplicity and adaptability across climate zones

### REFERENCES AND RESOURCES

· Hunter Panels  
[www.hunterpanels.com](http://www.hunterpanels.com)

· International Code Council  
[www.iccsafe.org](http://www.iccsafe.org)

· Polyisocyanurate Insulation  
Manufacturers Association  
[www.pima.org](http://www.pima.org)