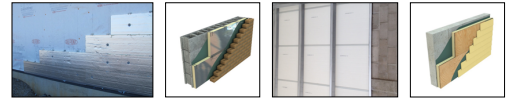




AIA XCI 101

Continuous Insulation and Beyond:
Design solutions that offer energy efficiency,
thermal value, fire performance and moisture control.



PROVIDER K031 Hunter Panels LEARNING UNITS 1 HSW

LEARNING OBJECTIVES

- 1 Understand the advancement of National Model Energy Codes as they relate to the energy efficiency of the building envelope*
 - Energy-timeline of regulatory actions dating back to 1970's
 - ASHRAE 90.1
 - International Energy Conservation Code
 - How they interact
- 2 Define and understand "continuous insulation" and how its use effects energy code compliance, current ASHRAE Standards, LEED and the International Energy Conservation Code.*
 - CI defined: Insulation continuous across all structural members without thermal bridges other than fasteners and service openings. It may be installed on the interior, exterior, or as integral to any opaque surface of the building envelope
 - Prescriptive method-ASHRAE 90.1 and IECC
 - LEED-certain levels require ASHRAE minimum r-value + 30% or 50%
 - 5 common materials considered for CI: Polyiso, XPS, EPS, SPF, Rockwool
 - Walls of any height incorporating foam plastic insulation must comply with IBC-NFPA285 testing requirement
- 3 Understand the NFPA 285 fire test and its role in code compliant wall assemblies*
 - Required for walls with foam plastic insulation in Chapter 26 of IBC
 - Other products may trigger requirement as well (e.g. WRB)
 - Fire test for 2 story wall assemblies – stimulates an internal fire
 - For Type I-IV construction, not required in Type V construction
 - Assembly test, not a component test
 - Incumbent upon manufacturers to provide information on tested assemblies, not just their products
- 4 Understand the environmental features and benefits of polyisocyanurate insulation including thermal performance, long service life, recycled content, negligible GWP and zero ODP.*
 - Highest R value per inch of commonly used materials for CI
 - Superior fire performance to other foam plastic CI options
 - Economical cost per R
 - Used for decades in walls and roofs
 - Blowing agents changed years in advance of governmental requirements, HCFC and CFC free, zero ODP
 - Recycled content in some facer materials
 - Composite materials offer FSC wood options

REFERENCES AND RESOURCES

- Hunter Panels
www.hunterpanels.com
- International Code Council
www.iccsafe.org
- Polyisocyanurate Insulation Manufacturers Association
www.pima.org