

The American Institute of Architects Continuing Education System

AIA/CES Registered Provider Program Summary Handout



Provider: DuPont Building Innovations

Program #: HAM 101

Program: **H**eat, **A**ir & **M**oisture Management
in Commercial Building Enclosures

Length: 1 hour

Credits: 1 LU Hour

HSW: Yes

SD: Yes

Description:

This seminar is a basic review of heat, air and moisture transport mechanisms across the building enclosure and the design control strategies. The first section will discuss heat transport mechanisms and heat management. There are 3 main mechanisms of heat transport: conduction, convection and radiation. Heat flow by conduction (*through materials*) is discussed in the first section which includes a brief review of thermal insulation materials and energy code requirements for thermal insulation. Heat flow by convection (*through air currents*) is controlled with a *Continuous Air Barrier*. A summary review of the overall impact of air leakage on building enclosure performance and the importance of air leakage control is provided in the second section. Air leakage and Air Barriers are addressed in more details in other CES presentations by the same provider (Air Barrier-1 and Air Barrier-2). Heat flow by radiation (*through space*) is not discussed in this seminar and it is more important for fenestration than for the opaque envelope. The last section is a brief review of moisture sources in buildings, moisture transport mechanisms, and moisture control strategies. The building science principles behind the moisture management are briefly discussed. Moisture management principles are addressed in more details in other CES presentations by the same provider (Moisture 1 and Moisture 2).

Learning Objectives: After attending this seminar, you will be able to understand

1. Heat flow mechanisms and heat control strategies
2. Air transport mechanisms and air leakage control strategies
3. Moisture transport mechanisms and moisture control strategies
4. The importance of heat, air and moisture management in buildings

Target Audience: Architects, Design Professionals, Specifiers, Owners, Contractors, Code Officials, Building Envelope Consultants, and Students. This program meets every experience level with time designed into the program for questions & answers.

