

Attic Insulation

Train the Trainer

Learning Objectives

By attending this session, participants will:

- Learn the importance of following cost-effectiveness guidelines when insulating attics.
- Recognize that proper attic treatment can save up to 20% of home heating and cooling bills.
- Understand that, combined with air sealing, attic insulation reduces the likelihood of structural damage due to condensation on the roof deck.
- Learn the process for insulating attics with blown-in cellulose.

Key Terminology

R-value

Thermal envelope

Supplemental Materials

Handouts & Resources

Attic insulation certificate to indicate installation date, etc., from a cellulose manufacturer

Cellulose coverage chart

Shapiro, Ian, and Timothy Lambert. "Sealing Attic Hatches". *Home Energy*. Sept./Oct. 2007.
www.homeenergy.org.

Classroom Props & Activities

Insulation rulers

Cellulose sample

Surveyors' flags

Sample attic tag from cellulose bag

DOE Insulation Fact Sheet Web site: www.ornl.gov/%7Eeroofs/Zip/ZipHome.html

Use this interactive site to illustrate the principle of cost-effective levels of attic insulation. Demonstrate how the recommended R-value changes based on climate data. Enter local zip codes, then compare to recommendations for different climates.

Sample zip codes:

- Cold: 55401 (Minneapolis, MN)
- Mixed-Humid: 37902 (Knoxville, TN)
- Hot-Humid: 33109 (Miami, FL)
- Hot-Dry/Mixed-Dry: 85701 (Tucson, AZ)

Class Overview

- Use the presentation and the DOE Web site to introduce the concept of cost-effective levels of insulation. Discuss proper installation techniques, the importance of covering every spot, and cleaning up after the job is done. Display insulation rulers, surveyor's flags, and other classroom props as they are discussed in the presentation.
- Create a scenario by describing the size (area) of an attic and the location (city) of the house. Let students use the coverage chart to determine how many bags of insulation would be needed to bring the attic to the appropriate R-value for the climate. Calculate how much more it would cost to increase R-value by a certain level. Use this example to stress cost-effectiveness.