

Understanding Home Insulation

Insulation lowers your cooling and heating costs — but how?

Home insulation slows down heat transfer from the outside during summer months, and from the inside when the weather turns cool. Here's the way that happens.

COMMON MATERIALS

Home insulation materials typically relate to the way it will be used. Bulkier insulation is needed for stop heat from moving around in open spaces like an attic. Foam boards will trap air, while reflective foils are ideal for cooler climates since they redirect heat away. The most common material used is fiberglass, which can be blown in using special machines or rolled out when attached to paper. Insulation may also be made out of foams, wool, foils or cellulose.

HOW HEAT MOVES

Conduction happens as heat moves through solid objects. In our everyday lives, you might notice the spoon — but not its handle — warming after it's been placed in a hot bowl of soup. Convection, on the other



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conditioning and heating our homes. But not every area of your home needs the same protection: Attic spaces are subjected to far harsher changes in air temperature, for instance, than interior walls. That's where the insulation material's "R-value" comes into play. This number indicates how resistant it is to conductive heat. Adding more insulation will increase its R-value, improving your home's defenses against heat transfer. Your particular needs will be based on where the insulation is to be placed, and the specifics of temperature, moisture and the home's age. Your needs could also change over time, so consult a local contractor before purchasing.

GETTING AN AUDIT

If you're feeling a draft or suffering from higher energy bills, you likely have an issue with your home's insulation. Contact a local professional or your power company about an energy audit. They're often low cost, and may be free in certain situations. They'll examine the home, typically using calibrated equipment, and then ask certain questions about things like where you regularly set the thermostat. Follow their recommendations to lower your costs.

REAL ESTATE 101

Finding an Inspector

Being new to an area makes it particularly hard to find a reputable home inspector. That's why the U.S. Federal Housing Administration has created a helpful tool to find certified professionals in your area. Go to bit.ly/3lcTiS3 to search for local inspectors and their contact details.

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by moving hot air around your food.) As convection takes place, warm air will rise while cool air will sink.

YOUR R-VALUE

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DETERMINING INSULATION R-VALUE

Home insulation stands as a barrier to this process, helping control the cost of air conditioning and heating our homes. But not every area of your home needs the same

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HOMEWISSE GLOSSARY

FHA 203k: A renovation and repair loan through the Federal Housing Authority, typically made for single family properties. **SOURCE:** MLS.com

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