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UNDERSTANDING INSULATION

From Owens-Corning, the company that's made it for 30 years.

In 30 years, we've grown to be America's leading insulation company by producing that pink Fiberglas® insulation can save energy—and money. Now the energy crunch and soaring fuel bills have made believers out of nearly everyone. In the last three and a half years alone, over 11,000,000 homeowners have added insulation. If your home is still an energy waster, flip the page. It'll help you save plenty. Insulation is cheaper than oil.

Types of insulation.

Blanket
Soft, woolly, made from glass, rock or slag. Comes in batts or rolls, and is the most widely used insulation for new homes and old. (Probably in your attic now.)

Loose-Fill
Fibers or granules sold by the bag to be poured or "blown" into place. Handy for crusting attic. Made from glass, rock, slag, even mineralized paper.

Rigid
Foam plastic insulation that is sold in panels of varying size and thickness. Good for use underneath exterior siding or below concrete floor slabs.

Foam
Chemicals that foam when they are pumped into hollow wall cavities by professional contractors with specialized equipment.

Note: All insulation are not alike. The performance of some depends much more on the way they're installed than on the way they're made. There's one way of being sure you get your money's worth. When possible, pick a type that is manufactured to proper density, thickness, and "R-value"—and insist on a brand with this label:



This label has been approved for use on blankets of pink Owens-Corning Fiberglas insulation, and products from several other leading manufacturers, by the NAHB National Association of Home Builders Research Foundation. In 11 means samples have been tested by independent experts, and found to deliver the performance claimed.

Insulation is cheaper than oil.

**Just as in figuring auto gasoline mileage, the amount of money you save

	Estimated Annual Fuel Savings*		
	Oil Heat & Electric Cooling	Gas Heat & Electric Cooling	All Electric
Albany, N.Y.	\$364	\$288	\$673
Chicago, Ill.	336	222	422
Kansas City, Kan.	284	173	399
Columbus, S.C.	211	144	280
Tampa, Fla.	144	132	190
Los Angeles, Cal.	156	80	288

on your home heating and cooling bills with insulation depends on a great many factors.

The estimated dollar savings listed on the chart above are based on April, 1977, average energy costs in each of the cities shown, taking into account local climate conditions. Estimated



Forget inches. It's R-values that count.
6 inches of Fiberglas have the same R-value as 15 inches of wood or 7 feet of brick.

savings are calculated for a typical 3-bedroom ranch home of 1,750 sq. ft. going from no insulation in the attic to Owens-Corning's recommended standards for that city.

These savings represent guidelines or estimates only, and do not reflect actual savings which may vary depending on the type and condition of a home, heating and cooling system, unusual weather conditions, personal temperature preference, family size, etc., as well as increase in energy rates and other unpredictable factors.

What's an R-value?
Take a look at that brick wall below, and you can see why it's important to understand "R-values." R stands for Resistance—to the flow of heat. The R-value of any material is simply a measure of how good an insulator it is. The higher the R-number, the better the insulator.

Pink Owens-Corning Fiberglas, for example, is a highly efficient insulator. A blanket just 6 inches thick has the same insulating R-value—R-39—as a wooden wall 15 inches thick, or 7 feet of brick. Check the map above, and then consult your insulation dealer or contractor about the R-values—and material—recommended for your home.

Why you should insulate your attic first.

This is an infrared photo of a typical unheated house. Places where



heat is escaping show up lighter. The windows, door, but look at the attic. Proof of where much of the heat is being wasted. (In summer, the sun's heat seeps in here, to run up air conditioning bills.) This is why the attic is one of the best places for you to insulate first.

Where else you should insulate.

When you've taken care of the attic, you can turn to two more areas: Exterior walls, crawl spaces.

Walls may be toughest. If they're enclosed on both sides, but hollow, the best thing is usually to have a professional contractor project loose-fill insulation through small, drilled holes. With unfinished walls, you can add blankets of insulation and then enclose them. Floors over unheated areas should be insulated from below. It's usually easy to apply blanket-type insulation, fastening it up with wire mesh, or cross bracing.

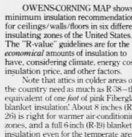
Doing it yourself vs. having it done.

If you're handy around the house, and can spare the time, you'll probably

be able to manage the biggest part of the job on your own—all you'll have to think the cost of having a professional contractor do it.

Your attic could stump you, though. For them, a professional contractor and his special blowing equipment might be best.

How much do you need? Well, where do you live?



How to pick a contractor.

Look in the Yellow Pages of your telephone book under Insulation Contractors—Cold & Heat, ask your utility company for names, or consult friends, remember, not inches, and judge by reliability as well as price. Your Better Business Bureau may be able to offer help, or ask for references.

More tips: Get several contractors to "quote" your job by R-values, not inches, and

Make sure that the insulation contractor you use installs the insulation according to the manufacturer's recommendations. (This is especially important with the loose-fill type of insulation.)

Ask the contractor for a certificate identifying the insulation manufacturer's name and stating the installed R-value of the insulation. A feature sales you're ready to sell.

The 8 most common insulating mistakes.

1. Picking blanket insulation lightly, to try to hold more in. Wrong. It's made fluffy on purpose. Squeezing it just drives out the air trapped between the fibers of insulation, and lowers the thermal R-value.

2. Laying attic insulation with the vapor barrier on top. Wrong. Vapor barriers at ceilings, walls, and floors should always

face the warm-in-winter side of the structure.

3. Laying wall insulation against pipes. Wrong. Tack it behind the pipes—to protect them against freezing and to avoid heat loss.

4. Putting attic insulation on top of recessed lighting fixtures or fans.

5. Sufficing the attic insulation all the way out to the eaves. Wrong. If you have eaves vents, they should be left open to allow plenty of air circulation. Lay your blanket insulation a few inches back so as not to block the eaves.

6. Letting cracks around chimneys and windows go. Wrong. Hand-pack scraps of insulation into all holes, nooks, and crevices.

7. Starting in the middle of the attic, where it's easy. Wrong. Start out at the eaves and work your way in. All your cutting and fitting will then be at the center, with plenty of light and headroom.

8. Overlooking small holes and rips in vapor barriers. Wrong. Patch everything up as best you can.

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In addition to items A through E under the previous heading, specs include:

F. Blankets of Owens-Corning Fiberglas insulation with recessed NAHB Research Foundation label—installed to at least minimum recommendations on map.

G. Use of vapor barriers (1.0 perm

or less) in walls, ceilings, floors, and crawl spaces.

H. Perimeter insulation for slab-on-grade construction.

I. Certain air-handling ducts insulated.

J. Correctly sized heating/cooling plant.

K. Correctly sized heating/cooling plant.

L. Correctly sized heating/cooling plant.

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