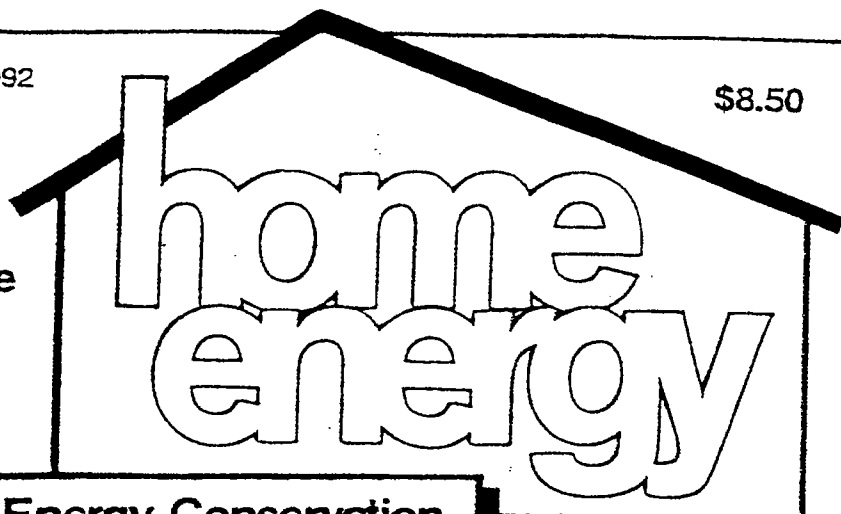


Also in this issue:

- The Dual-Integrated Appliance: Space and Water Heater in One
- Toilet Replacement Programs Topple the Throne
- Solar Water Heaters Tested



The Magazine of Residential Energy Conservation

Shoot the 'Pink Marauder'

I'd like to congratulate you on the insulation issue (*HE*, "Home Energy's Guide to Insulation," Jan/Feb '92, p. 23.) It was a good attempt at providing a comprehensive introduction that can be used by the general public. Unfortunately, I think you glossed over some important technical

Let's face the fact that we have all, to one degree or another, been brainwashed by a certain "pink feline" into thinking we can just roll out "some of that stuff that comes in rolls and is itchy" and our cares are over! While the article avoided this embarrassing oversimplification, I think you did mislead readers into believing that all types of insulation perform similarly. In my experience fiber glass never performs like the Pink Guy says it will. Don't get me wrong! Fiber glass is a perfectly fine insulation material. When installed in the real world, however, whether in new or retrofit construction, it more often acts more as an air filter than as insulation—despite careful design, regardless of the care with which the air barrier is installed, and no matter how good the crew is! Of the hundreds of buildings I have inspected with infrared thermography, I have yet to see even one fiber-glass job that doesn't suffer some reduced thermal performance. Often the degradation is substantial, especially under windy conditions. For these

reasons, I no longer recommend the use of fiber-glass insulation in any building. Period.

If not fiber glass, then what? In terms of performance, nothing touches injected foam. The realities of both the environmental and the dollar costs, as well as potential problems with installation, however, lead me toward promoting a more benign insulation—cellulose. You will find no better value than this poor cousin of the Pink Marauder! Again, as a thermographer I consistently see cellulose as a hands-down winner. The new wave of dense-pack installation field tests being performed by many weatherization contractors, backed by hard data, only further convinces me.

Cellulose is forgiving of our mistakes in design and construction. Its *in situ* performance more closely matches our theoretical expectations. Why? Because it greatly reduces air movement by conforming to irregular spaces and filling the small cracks that are air passageways. Yes, it can be poorly installed. You must still deal with bypasses. Yet I highly recommend installation using dense-pack methods whenever possible. Clearly, the small additional sum of money spent for an infrared follow-up inspection (\$100-300) would be well spent.

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John Snell is a professional thermographic inspector with over 10 years experience. He is a member of the American Society for Non-Destructive Testing and serves on the ASNT Infrared Certification Committee. He has no connection with the cellulose insulation industry, other than his frequently-stated conviction that cellulose is the best choice for residential building thermal insulation.

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