

# Getting the Best Insulation on Your Home Flooring



**James Dulley**  
www.dulley.com

**Both hardwood** and cork are beautiful flooring materials and they are natural, renewable resources. Even though wood and cork are reasonable insulators, they will not provide as much insulation as carpeting over a thick pad. With the millions of tiny air pockets though, wood and cork flooring feels warm to your feet and their natural rich appearance creates a comfy ambiance.

The insulation of the flooring material is less important than properly insulating the floor. If your home is built over a crawl space, the underside of the floor structure or the entire crawl space should be insulated. For a house on a slab, the slab perimeter should be insulated. If you have a basement, exposed walls should be insulated to several feet below the ground level.

By removing the carpeting, you will realize a savings by not having to run room air cleaners and a vacuum cleaner as frequently to remove allergens which thrive in carpeting. Very few people are allergic to the finishes on hardwood or cork flooring. Both can be cleaned with a damp mop to remove allergens and grit.

Hardwood and cork have somewhat similar properties and are durable and attractive. Hardwood is more commonly used and more types and styles are available. Cork, although it feels hard to the touch, is more comfortable to stand on for long periods of time. If you drop a glass on a cork floor, it generally will not break. This is one reason it often is used in kitchens.

If you decide on hardwood, by "best wood," most people mean most durable and attractive. There are significant differences among various hardwoods used for flooring. With children in a home, durability is likely your first priority. With proper care, it can hold up well under their little feet.

There are two characteristics which constitute durability. The first is hardness of the wood surface. A harder wood holds up better to foot traffic and resists dents from dropped items. Even if the surface finish gets scratched and marred, it can be refinished with very little sanding. A softer wood may require more sanding to level the surface.

The second characteristic of durability is stability. A hard-

wood which is stable will not change shape and size much with changes in humidity and temperature throughout the year. If you prefer natural ventilation to save energy during summer with its higher humidity, stability should be a consideration.

The hardest woods, such as hard maple, hickory, red oak, etc., may not always be the most stable. Always check on the specific wood specie, not just a general name such as cherry. Brazilian cherry is twice as hard as black cherry, but black cherry is more stable.

An environmental alternative to solid flooring is engineered hardwood. A veneer of real hardwood is bonded to several plies of other less expensive woods so fewer hardwood trees are consumed. This makes it more stable under varying indoor conditions than most solid hardwoods. The veneer is thick enough for several refinishes.

The appearance of the flooring is a function of the type of wood, finish and patterns. The newest design for do-it-yourself installation is a puzzle floor. The hardwood pieces are shaped as interlocking puzzle pieces. It is laid as a floating floor for easy installation.

For environmentally conscious homeowners like myself, cork is the perfect material. The bark of cork oak trees is peeled off every nine years and the trees heal themselves and grow stronger. They can live to be 150 years old.

The natural colors of cork can range from almost white to deep, dark browns. A thickness in the 3/16-inch range is typical for the one-foot-square tiles. The darkness is controlled by how long the cork is baked.

Other colors, such as reds, greens and blues, are also available with varying grain definitions. These colorful cork tiles are usually made using a stained cork veneer cork layer over a natural-colored cork base. These have the same resilient feeling as solid (massive) cork tiles.

Massive cork tiles are the same thickness as veneer cork, but are not layered. They have an insulation value of R-2.8 per inch thickness so they save energy over an uninsulated slab floor. Fewer colors are available because they are not stained.

The following companies offer hardwood flooring: Boen Hardwood Flooring, (800) 783-3309, www.boen.com; Briggs Engineered Wood Products, (800) 750-5563, www.puzzlefloor.com; Junckers Hardwood, (800) 878-9663, www.juncker-shardwood.com; and cork flooring: Dodge-Regupol, (800) 322-1923, www.regupol.com; Jelinek, (800) 959-0995, www.jelinekcork.com; and Natural Cork, (800) 404-2675, www.naturalcork.com.

*Send inquiries to James Dulley, Cooperative Connections, 6906 Royalgreen Dr., Cincinnati, OH 45244*

# Sparks Fly, Grapefruits Glow at Safety Display

**Eight-year-old Destinee Cole** now knows why her kite blew apart when it got tangled up in power lines.

The Hermosa student was in the crowd Jan. 30 at the Black Hills Stock Show in Rapid City, when electric cooperative employees demonstrated how powerful those power lines are. They used grapefruit, hot dogs, a rubber tire and a tree branch to make their point. Destinee thought of her kite.

"I fly kites. Once, I hit the electricity line, and the line went off and the other end of my kite blew off," she said.

Destinee and her classmates got the message and won't be flying kites or climbing trees or doing several other activities near power lines, they said.

Joe Connot of West Central Electric in Murdo, S.D., said the casualties of electricity accidents can just as easily be a person as a kite.

"Electricity takes the all paths to the ground with most amount going the route with the least amount of resistance. That may be your body," Connot said. "You can't see electricity. You can't hear electricity. But if you touch it, you know it's there."

Connot led the demonstration, performed using a trailer complete with electrical lines and a mannequin, designed to illustrate how fast and powerful electricity is.

When the hot dog was positioned on the mannequin and the electricity went on, the hot dog slowly split from within.

"It burns the hot dog from the inside out and that's what happens to your body," Connot said.

When the grapefruit took its turn, it glowed pink and smoked, leaving charred flesh behind.

"That's just like your heart," he said. "That's not a very good deal, is it?"

Connot reminded adults and children alike that the rubber boots often worn by firefighters and other emergency responders don't guarantee insulation from electrocution. Depending on what's in the rubber, it could conduct electricity, he said.

Then two co-op employees from Butte Electric Cooperative – Mike Davis and Gerald Draine – demonstrated by placing a rubber tire in the mannequin's metal hand. It smoked, sparked and then ignited, shooting a flame about a foot high and emitting sparks.

While the message was prevention, as Connot reminded folks to stay away from downed power lines and trees with power lines nearby, he also described a safety feature designed for the scenario he hopes people will avoid. He said electricity is now set up in many areas so that it turns off briefly in the event of a short.

"It shuts the electricity off just a little bit," he said. During an electrical contact, a person's muscles contract and they cannot let go of whatever they might be holding onto. A break in the current, it is hoped, would allow a person to break free.

A similar feature – a ground-fault circuit interrupter (GFCI) breaker – is available for inside, where electricity can be just as lethal, Connot said.

"When it senses a short, it trips out," he said, noting that it would possibly prevent electrocution in the event a hair-dryer were to fall in a bathtub.

Connot asked that firefighters call the local electric co-op to assist during fires because there are various configurations for power, and the same technique does not shut the power off in every case.

Similarly, he asked any driver who might run over the green electrical boxes that house electrical switches to stay in their vehicle and wait.

"Somebody somewhere just lost their power. They'll call us and we'll come find you," he said.



A grapefruit glows in the display.

Photo by David Larson

## Attention: Teachers

# Earn College Credit at Lignite Coal Seminar

**Basin Electric, the** Lignite Energy Council and the American Coal Foundation are sponsoring a teacher seminar titled "Lignite – Our Regional Resource: Energy, Economics and Environment" at Bismarck State College in Bismarck, N.D., June 19-21, 2007.

"The cost of the seminar and travel to it will be paid by Basin Electric Power Cooperative for South Dakota, Minnesota and Montana teachers," said Anika Schaff of Basin Electric.

Now in its 22nd year, Schaff says the seminar provides teachers with a broader understanding of the lignite coal industry and the important role it plays in providing electricity to consumers, farmers and businesses. The seminar includes tours of a lignite mine, a power plant fueled by lignite and the Great Plains Synfuels Plant. The Synfuels Plant converts coal into synthetic natural gas and other valuable byproducts.

The seminar is being held in coopera-

tion with Bismarck State College and the Center for Economic Education at the University of North Dakota. Teachers can earn one semester graduate credit in economics through UND by successfully completing the seminar requirements.

Registration information is available on the Basin Electric Web site at [www.basinelectric.com](http://www.basinelectric.com).

For further information or to register, contact Anika Schaff at 1-800-242-2372 or e-mail her at [aschaff@bepc.com](mailto:aschaff@bepc.com).