

# *The Comfort Corner*

## **Foam v Fiberglass v Cellulose**

When it comes to insulating a new house, there are a few ways to get it done. The main three ways of insulating a new, wood or steel framed house are fiberglass, cellulose and foam. So, other than the obvious, how do these products differ? Is one superior to the others? What really counts when it comes to insulation?

For the next couple of months, we'll be taking a look at these different systems to try and sort them out. To help objectivity, we will use NAHB's study, *Field Demonstration of Alternative Wall Insulation Products*

We start at the beginning - with definitions:

**Fiberglass batts** - Made of fiberglass, batts come in wide variety of sizes, thicknesses & R-values. They are available with a kraft facing, which is generally inset stapled to the cavity wall, or unfaced, also called friction fit, which is covered with a separate vapor barrier.

**Blow-in-Blanket System** - Also made of fiberglass, BIBS is a loose-fill product that is blown behind a net that has been stapled to the studs. Holes are punched through the net when and where the installer blows the material into the cavity. R-values depend upon the cavity



depth and density blown but can be up to 4.2 per inch

**Spray Cellulose** - Made from recycled newsprint, cellulose is applied to wall cavities by a hose that mixes the material with water to activate a binder that has been mixed in. Loose material from the installation is often recycled back in to the process. R-value is about 3.6 per inch.

**Low Density Polyurethane** - Foam, made by combining polymeric isocyanate (MDI) with a proprietary resin. Soy-based foams are also available. R-values are about 3.6 per inch and the foam is open-cell. Higher density, closed-cell foams are also available at a premium.

If we stopped here, we would be forgetting one of the more important aspects of a good insulation job - the air sealing or polycel/caulking. In fact, this is one of the most important parts of an insulation job - as we will see later. For now, we need to note that there are different levels of air sealing and they vary widely. A standard air seal usually involves caulking attic penetrations & chinking windows with fiberglass, while an upgraded air seal involves sealing windows with foam or caulk.