

What About Spray-in-place Cellulose?

Spray-in-place cellulose is an effective way to insulate your house. Nu-Wool is the brand name for sprayed-in-place cellulose. The manufacturers add glue to the cellulose. On application, the installer adds water to the cellulose/glue mixture. If installed properly spray-in-place cellulose can insulate your house well.

However good spray-in-cellulose is, we choose not to install this product. This insulating technique is not superior to fiberglass insulation. You will pay more for spray-in-cellulose than you will with a comparable fiberglass installation.

What about R-values?

Spray-in-place cellulose installers cannot outperform fiberglass in R-values. Their manufacturers claim¹ to achieve R-13 in 2x4 construction and R-21 in 2x6 construction. We can install a R-15 batt in 2x4 construction for the same cost as Nu-Wool. Our R-21 (2x6) construction would even be more of a savings.

What about mold?

Cellulose installers cannot guarantee freedom from mold. Mold grows in buildings when water cannot evaporate. Though mold retarders are added to cellulose, improper insulating techniques are the culprit. These include: improper ventilation, faulty use of vapor barriers, and building problems. Some cellulose manufacturers claim that their product "stops the mold." The truth is mold can grow anywhere water is unable to escape. Cellulose.org is careful to say that "relatively few cases of significant mold growth on cellulose insulation have been reported."² Mold has been found in cellulose products. The reason is that no amount of mold retarder can eliminate mold if the product is improperly installed.

Spray-in-place cellulose takes nearly four gallons of water to every bale of cellulose.³ Therefore, the

¹ www.nuwool.com/r-value/index.html

² www.cellulose.org/cellulose_mold.html

³ With the ongoing concern over rot, mildew and mold in buildings, there is debate over the ability of wet-spray applied cellulose insulation to dry out properly. In a worst-case scenario played out in a public

house must be allowed sufficient drying time after the application.

What about gaps?

Nu-Wool installers claim that their product is "gap free." That is, they say that their material fills every gap as opposed to fiberglass. True, fiberglass can be installed with gaps. It is also true that blown-in-cellulose can be installed with gaps. Gaps are possible with any insulating method. If installed improperly, cellulose can shrink and leave gaps. We have been installing fiberglass since 1975. We are very careful about leaving gaps. We use polyurethane foam around exterior wall plugs. We make sure that bottoms and tops of every run is gap free.

What about the energy costs?

Given that spray-in-place cellulose cannot outperform fiberglass, it is reasonable to assume that they cannot do better when it comes to energy costs. The difficulty is, unless you insulate your house with spray-in-cellulose, live in it for a few months, then remove the cellulose and install fiberglass, there is no sure way to guarantee a savings for your particular house. Here are a few ways to achieve the greatest energy savings:

- Insulate all gaps including sill plates and exterior plugs.
- Use better-grade windows and doors.
- Consider using a 2x6 construction instead of 2x4 wall construction
- Insulate your ceilings well. Most heat loss occurs through the ceiling.
- Install a 90% efficient furnace.
- Install a high seer rating air conditioner.

With the above items in place, your energy savings will be greatest.

Conclusion

While spray-in-place is a great product, one cannot make the claim that it is superior to fiberglass. Consider having a spray-in-place professional and a fiberglass professional provide you an estimate for your project.

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housing project, 18 months after application, the moisture content in the walls was between 30 to 60 percent! Though the wall construction type (effective vapor barriers on both inner and outer sides of the wall) lent itself to magnifying the problem, it was contributory, not the culprit. Up to 200 percent moisture, on a dry-weight basis (weight of water divided by the weight of cellulose), was used for the installation. This translates to 5 to 6 gallons of water per 30-pounds bag of cellulose insulation (about 4 gallons per bag is standard). The cellulose insulation was completely over saturated with water when installed. From www.wconline.com (Posted on: 09/19/2003, *The Green Thumb Paper Chase (Part 1)*, By J.M. Syken).