

Having trouble viewing this email? [Click here](#)

You're receiving this email because of your relationship with Building Science Corporation. Please [confirm](#) your continued interest in receiving email from us.

You may [unsubscribe](#) if you no longer wish to receive our emails.

information consulting bookstore seminars

building science.com e-news

Changing the way the world builds. People. Ideas. Integrity.

December 28, 2009 Issue # 20

Dear Jeffrey,

Wall assemblies insulated only on the inside part of the wall leads to cold sheathing. Cold sheathing absorbs more water than warm sheathing and has been shown to rot walls.

What is the solution? Insulating the outside of a wall assembly is necessary for highly insulated enclosures that we want to last. Other important components to highly insulated and durable wall structures are discussed in this month's feature article. Read Energy Flow Across Enclosures below and find out why it is still a really good idea to drain and back-ventilate our claddings and provide supplemental dehumidification.

To view a list of past newsletters, click [here](#) for our archives.

Happy reading!



Jeff Melvin
Editor, buildingscience.com e-news

[Forward buildingscience.com e-news to a friend!](#)

Featured Article by Joe Lstiburek, Ph.D., P.Eng., Fellow ASHRAE

Energy Flow Across Enclosures

Building Science Insight No. 028

Buildings don't work they way they used to. Folks are always saying stuff like this. But let me make the case regarding just one factor and you decide. There are other factors of course, but I want to focus on only one for the moment. This one over-arching factor is the amount of energy exchange across the building enclosure.

I think that higher levels of thermal resistance and reduced heat gain across building enclosures has forever changed the performance of buildings-and not necessarily in a good way. And things are going to get worse before they get better. Sound familiar?

The lens I am going to use to look at this factor is moisture. Why? It is one of the principal damage functions acting on materials along with heat and ultra-violet radiation.² I think moisture is the key to

understanding the performance of buildings in general-and in this particular case-in specific.

The consequence of this reduced energy exchange is beginning to be seen all over the place: mold, part load humidity problems, rot, and corrosion. Highly insulated building enclosures with reduced heat gain have low drying potentials and increased interior moisture loads. When they get wet they don't dry. Stuff is beginning to stink, rot, break and annoy. [article continues]

To read the entire feature article and find a downloadable PDF version, click [here](#) to visit our web page.

2010 Building Science Seminars

The schedule for our 2010 seminars will be announced here. If you are receiving this newsletter, you are in the right place and will be the first to know.

Sign Up For This Newsletter!

About BSC

Building Science Corporation is a Boston, MA and Waterloo, Ontario based architecture and building science consulting firm with clients throughout North America.

Building Science Corporation specializes in building technology consulting. Our focus is preventing and resolving problems related to building design, construction and operation.

We are internationally recognized for our expertise in moisture dynamics, indoor air quality, and forensic (building failure) investigations. We are also on the leading edge of the design of sustainable communities and buildings.

We believe in promoting energy efficiency and environmental responsibility within the constraints of marketable and affordable building technology.

Read More About Us: www.buildingscience.com



You are receiving this newsletter either because you have requested it or because of your relationship with Building Science Corporation.

To opt out any time from receiving this newsletter, click on the "unsubscribe" link below. Otherwise, to ensure that you continue to receive this newsletter, please add newsletter@buildingscience.com to your address book now.

Your privacy matters to us.
We are not going to sell, rent, lend or share your information with others.

Copyright © 2009 Building Science Corporation, All rights reserved

You may reproduce this article by including this copyright.



[Forward email](#)

 **SafeUnsubscribe®**

This email was sent to jeff@buildingscience.com by newsletter@buildingscience.com.
[Update Profile/Email Address](#) | Instant removal with [SafeUnsubscribe™](#) | [Privacy Policy](#).

Email Marketing by



Building Science Corporation | 30 Forest St | Somerville | MA | 02143