

Newsletter #4

March 2011



Dear house owners and other interested,

Light a candle and find out the performance of the glazing in your windows.



Single glass reflection.
You can clearly see the reflexions of both sides of the single pane of glass

On a dark night you can approach a window with a lighted candle to figure out how its performance. The reflections will tell you if it is single, double or triple glazing. Hold the candle near the glass and observe how many reflexions you can see. If it is triple glazed you will see three distinct reflections separated from each other. Each one will be divided in two fuzzy reflections representing each side of the individual pane of glass.

If you only see two reflections, your window is double-glazed. If you see only one reflection it is high time to do something about our single glazed windows.



Triple glazing with LE coating of outside of the innermost pane.
Indicated by red color of the second of the six reflexions

If one of the reflections shows a different color it is likely that one pane is coated with a low-emission coating. This test cannot detect if the gap is filled with air, argon-gas or krypton-gas. Neither can it tell you the performance of the spacer that keeps the panes apart. Generally speaking, in modern windows, most sealed cassettes are filled with argon gas and the spacing can be between 14 to 20mm. If the much more expensive and better krypton gas is used, the space is usually reduced to 10-12mm with maintained insulation capacity.



MYTHBUSTING:

Sometimes you hear that the argon gas will escape out of the window over time. This will not happen without you noticing, any gas escaping the sealed unit would have to be replaced with air containing moisture and you would notice condensation between the panes. After 20 years and 270 houses with many thousands of triple glazed windows installed in Scandinavian Homes houses in Ireland, we have only heard of 4 panes that developed internal condensation.

Do not fool yourself (and the environment) by burning wet fire-wood.

TYPES OF FUEL AND HEATING VALUES



The knowledge of drying turf can be used for drying of firewood

Combustion involves conversion of the fuel from solid form into gases, water vapor and charcoal. All wood has roughly the same heating value per kilogram. The lighter the wood, the more must be used to achieve the same heating value as with heavier species of trees.

Properly air-dried wood contains around 20% water. Recently felled wood contains 60-70% water and must be seasoned before it can be used in a wood-burning stove. It must be sawn, chopped and air-dried and should not contain more than

approx. 25% water when it is burned. This equates to the wood being left in the open for approx. one year - covered to protect against rain. In a wet climate, like in Ireland, the wood must be stored in a very well ventilated space under roof.

Burning damp wood means that most of its energy is wasted to evaporate the moisture within. Heat emission is therefore minimal. It also causes sooting up of the chimney and risk of chimney fire.

Energy content in fire-wood at different moisture levels

10% moisture level	4,7	kWh/kg
20% moisture level	4,0	kWh/kg
30% moisture level	3,5	kWh/kg
40% moisture level	2,8	kWh/kg
50% moisture level	2,3	kWh/kg
60% moisture level	1,0	kWh/kg

Compare normal dry firewood to other sources:

Firewood 20% moisture	4.0	kWh/kg
Pellets	4,8	kWh/kg
Oil	10	kWh/lit
Solar collector	600	kWh/yr/m ²

New passive house

This small cottage in Connemara is actually a brand new fully passive spacious three-bedroom family home. Example of how easily passive performance can be reached if the layout is well considered.

Built on February 18th 2011 and soon ready for occupation.



The 200-Watt Micro Heaters finally arrived and were sold out very quickly. After that they were sold out at our suppliers, so we have none left in stock. We probably will not get any more in stock until next heating season at this stage.



On Saturday, 9th April, Passive Development Ltd (www.passivedevelopment.ie) will hold a 'One-day-Passive House Introductory Course' in Galway in the Galway Bay Hotel. Cost of the course is €100/person and registrations can be made through the COPE Galway (www.copegalway.ie) website.

As part of the course our showhome in Moycullen will be open for viewing with a guided tour by Peter Lohr, who we have been working with since 2005.



On May 7th and 8th you can hear Lars Pettersson speak at the Sustainability Seminar at SelfBuild Ireland show at the Galway Racecourse.



Passive Development Ltd is offering a special low-cost deal to Scandinavian Homes customers for a PHPP calculation for their Scandinavian Homes Ltd - house or - design. See more details on the flyer [here](#).



Passive Development is in the process of certifying their Scandinavian Homes building, built in Co.Kildare in 2008 as a 'Passive House' with the Passivhaus Institute in Germany.

The house is on our database, [click here to view](#) (House #227 & #228).

Sustainable apartments at low cost.

Our line-up of houses adjusted for the Swedish and Norwegian markets is coming together. Here you can see an example of a passive apartment building containing 6 apartments. This timber-frame passive building represents a very price-efficient way of producing truly sustainable apartments. Timber exterior painted with natural linseed oil paint, clay roof tiles, extremely low running costs and very high comfort levels for the tenants.



This type of building is denied the people of Ireland and UK thanks to our clever authorities who prefer to talk about sustainability and carbon emissions rather than to allow and encourage truly sustainable types of buildings.



I could go on forever about our hostile planning authorities, dysfunctional standards authority, bankrupt half-official insurance schemes (Home-Bond), rule-ridden fire authorities who blindly follow British Standards, conservative insurance industry incapable of analysing their own statistics etc. etc. Maybe the new government could be interested in adjusting rules and regulations to benefit the common good? They will probably be busy with more pressing problems for the foreseeable future...

Insurance costs: Exclusive reading for owners of Scandinavian Homes houses:

Please log in to customers page to read in our internal forum about insurance of your house:
<http://www.scanhome.ie/customers.php>



All the best for now, Lars Pettersson,

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