

Timber Homes (SANS 10082)

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AGENDA

- **What is a Timber Home?**
- **Why do we care about Timber Homes?**
- **What is a Timber Home worth?**
- **Looking to the future.**



What is a Timber Home?

Source unknown



What is a Timber Home?

Eco Log Homes



What is a Timber Home?

Timber frame building is a versatile, time-tested method of natural building that allows you to create beautiful, sturdy buildings.



Rustic Homes



What is a Timber Home?

Timber frame buildings have been around for thousands of years in ancient Japan, continental Europe, and Neolithic Denmark, England, France, Germany, parts of the Roman Empire and Scotland.

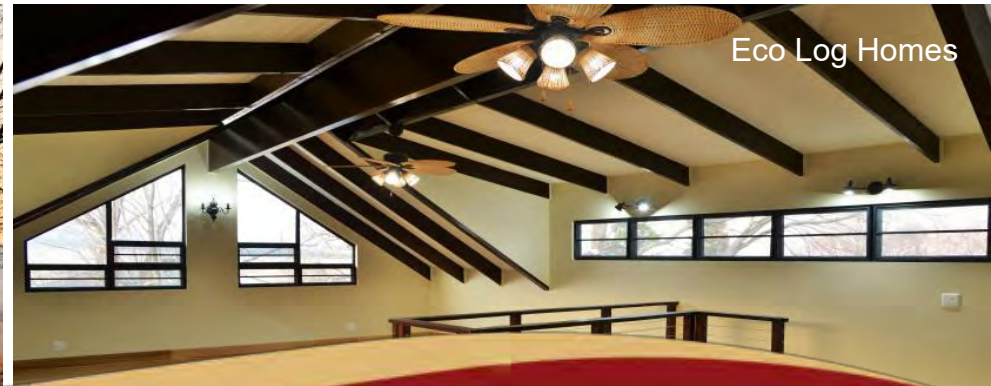


Denmark 1560



Why do we care about Timber Homes?

70% of the developed world's population lives in timber frame houses. These include many in the USA, Canada, Scandinavia, Europe, New Zealand, Australia and Japan.



Why do we care about Timber Homes?

Myth of inferiority

- **Timber frame homes do not have the same structural integrity as brick & mortar.**
- **A timber frame home will only last for approx. 5 years.**
- **Timber frame homes are hot in summer and cold in winter.**
- **Timber frame homes create a fire risk.**
- **Timber frame homes destroy forests.**
- **A Timber frame home is a cheap alternative.**



Why do we care about Timber Homes?

Timber Frame Construction is not an ABT and timber structures are built to a high SABS standard.

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SABS

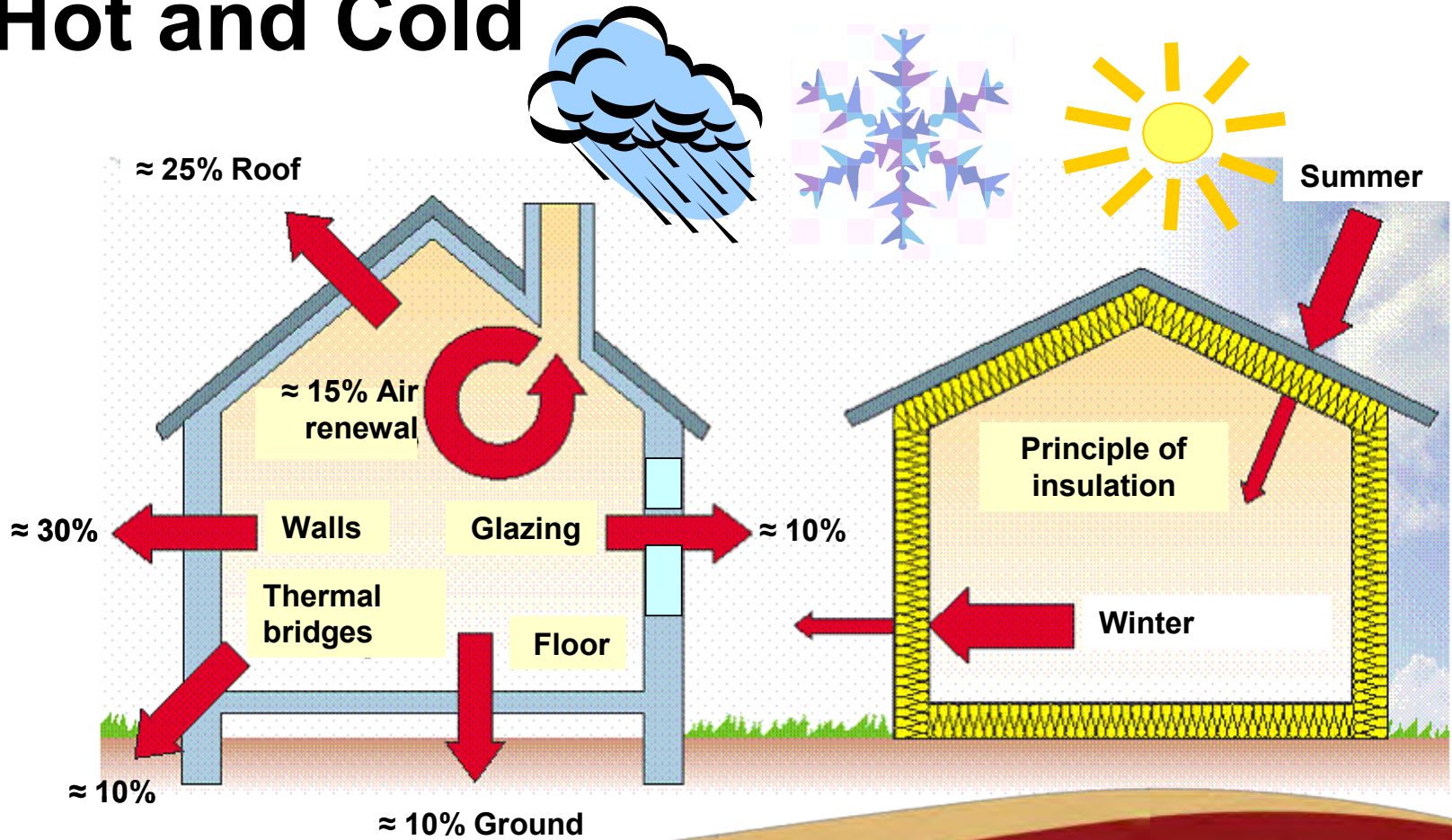
South African Bureau of Standards

SOUTH AFRICAN NATIONAL STANDARD

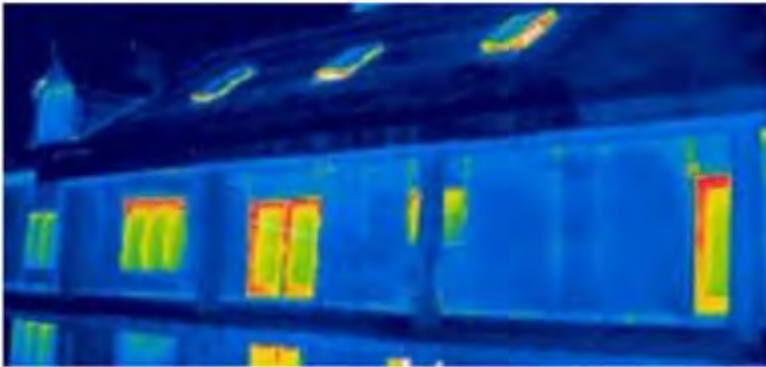
Timber frame buildings



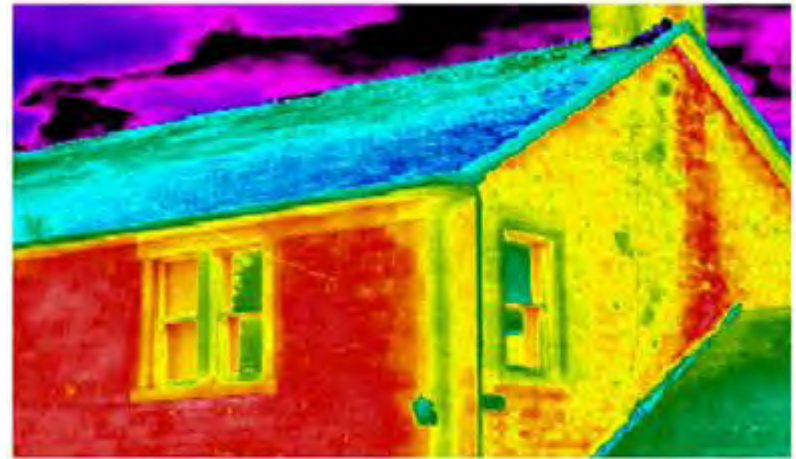
Hot and Cold



Hot and Cold



Timber Frame Home



Brick and Mortar Home

Fear of Fire

- Timber performs better than many other building materials in the event of a fire. It chars and burns at a slower rate and is less likely to melt or collapse.
- Correctly built, a timber home comfortably measures up to South African fire safety requirements. The charring rate of timber is **0.6 mm per minute**. This figure is widely accepted internationally and has been the subject of extensive published research.
- The charred timber prevents oxygen reaching unburnt timber, thus extending the structural integrity of the burning timber.



Sustainable?

- Timber is a renewable resource – in sustainable plantations, harvested trees are constantly replenished.



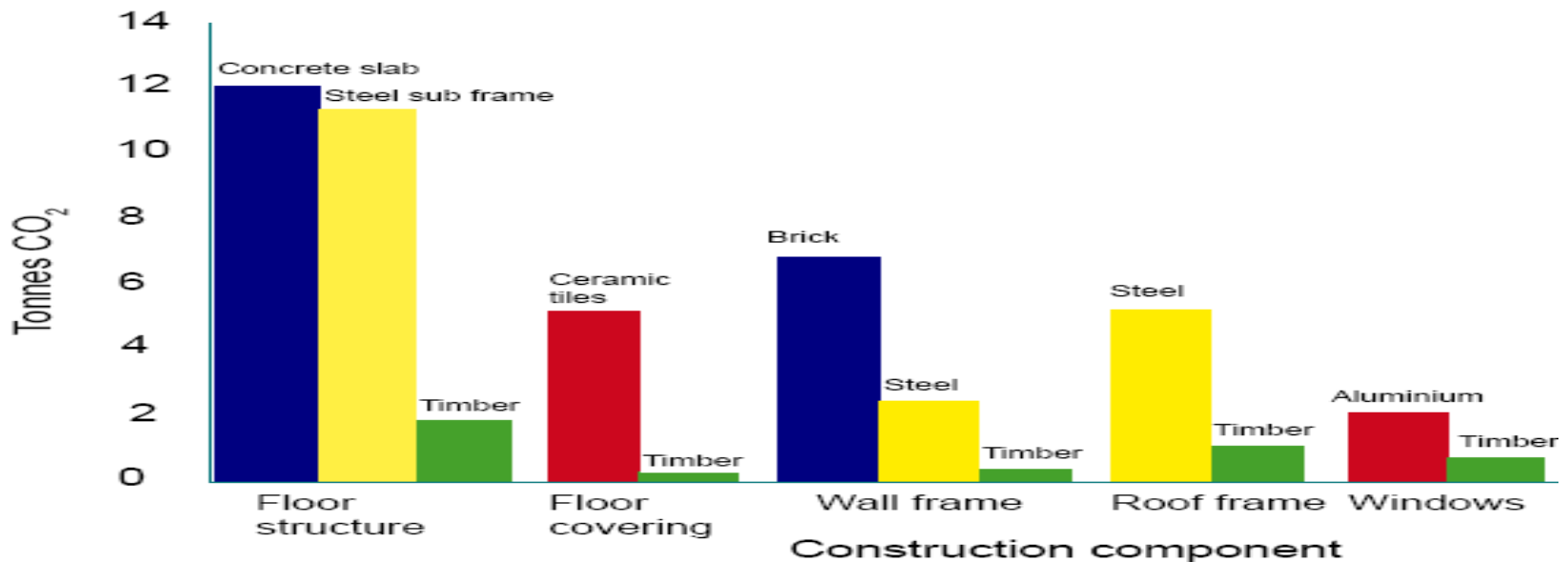
Carbon Footprint?

- Is carbon footprint really a big deal?



Carbon footprint and your new home

- Typical Residential Home (+-200m²)



What is a Timber Home worth?

Challenges faced in evaluating a timber home.

- Most people don't understand the construction method.
- Most people don't understand the value difference between a high-value structure and a low value „wendy house“.
- Most people don't know how to identify the attributes of a home built in strict accordance with the SANS10082:2007.



What is a Timber Home worth?

The ITC-SA is here to help.

- The ITC-SA can provide an inspector that is qualified to evaluate an existing timber home.
- The ITC-SA can provide a list of registered ITC-SA timber frame member builders.
- The ITC-SA can provide a list of registered ITC-SA engineers that understand structural timber construction.



What is a Timber Home worth?

How does a builder become an ITC-SA member?

1. The builder applies for membership, subject to an in-depth background check.
2. The ITC conducts 3 technical audits on 3 separate projects to ensure that the builder fully understands the SANS 10082:2007.
3. The builder undergoes an annual audit after registration.
4. The builder receives a SAQA registration number from the ITC-SA as the ITC-SA is a recognised SAQA professional body.



Looking to the future

International trends?

- “Timber frame is expected to account for 27% of new housing in the UK by 2017, according to a new report.”

REF: <http://www.structuraltimberawards.co.uk/news/timber-frame-heading-for-27-new-housing-market-share/>

- “The quarterly European Architectural Barometer survey of 1,200 architects across six European nations showed most architects expect the use of timber frames to increase over the next five years.”

REF : <http://www.building.co.uk/timber-frame-building-set-to-increase-say-architects/5041252.article>



Looking to the future

International trends?

- “Most European countries are strong advocates for the implementation of the Kyoto protocol and thus all new buildings in Europe will undergo an energy audit and be attributed an energy rating, so that buyers have the ability to distinguish energy efficient from energy inefficient buildings. It is estimated that one-third to one-half of all GHG emissions are attributable to building construction and operation costs.

REF : UK Timber Frame Association.

1-<http://www.timber-frame.org/>

2-<http://communiqués.gouv.qc.ca/gouvqc/communiqués/GPQF/Avril2006/20/c9105.html>

3-Ürge-Vorsatz et al. 2007. Appraisal of policy instruments for reducing buildings' CO2emissions. Building Research and Information. Volume 35. Number 4. July/August 2007.

4-Lowe, Robert. 2007. Editorial: Addressing the challenges of climate change for the built environment. Building Research and Information. Volume 35. Number 4. July/August 2007.



Looking to the future

Timber Homes are gaining popularity in South Africa



Eco Log Homes



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TAKE AWAY?

- Timber frame homes have many exceptional benefits.
- Due to lack of education and exposure, timber homes are often difficult to evaluate.
- The ITC-SA can assist with all aspects of timber home valuation and connect you with timber experts.
- Timber frame homes are gaining popularity in South Africa.



THANK YOU

www.itc-sa.org

