

ENDLESS POSSIBILITIES
UNLIMITED DESIGNS



GO GREEN, CANADA!

ECO HOMES FOR HEALTHY LIVING

 **Thoma**
Holz100 Canada
Eco
Friendly
Homes

**NOW AVAILABLE
IN CANADA**

A HOLZ100 home can be built in any architectural style possible. The design possibilities are endless, ranging from modern and traditional homes, community centres, schools, kindergartens, and fascinating wooden hotels, to cottages and high end villas. The wood frame is compatible with any kind of exterior or interior work. This sustainable building with 100% wood has no limits when it comes to form and design.

The ceiling can have a huge span, up to 7m (at 500kg/m2 and just 25cm ceiling thickness). Windows can be round or rectangular. Door and roof shapes are made easily with precise CNC milling. Combining metal, stone, glass or ceramic with the wood is easy. A single raw material for all joints – architects and customers find a new freedom of personal expression with the Thoma HOLZ100 system.

Construction, now more than ever, is a matter of personal decision; a home reflecting your personality. Never before are there so many trends and styles functioning together. So many possibilities to shape your immediate surroundings whilst matching your private preferences and ideas make building a home special.



Building a New Home? Go HOLZ100!

In an age where health and pollution are headline material, HOLZ100 provides the answer for healthy living with its eco-friendly, state-of-the-art, 100% natural wood construction for homes. With its non glued solid wood shell, a HOLZ100 house has set world records in heat insulation, air conditioning, energy savings, indoor air quality, soundproofing, protection from radio waves, fire protection, and earthquake security. The patented Thoma HOLZ100 construction method wraps the home's inhabitants in pure solid wood with no chemical pollutants, providing the basis for a cleaner, healthier, and greener life.

Natural Benefits of HOLZ100 Houses

- Healthier Living
- Natural Comfort
- Great Heat Insulation
- Long Cooling Duration
- Minimal Operating Costs
- Low CO2 Footprint
- Radiation Shielding
- Allergen Free
- Excellent Noise Protection
- Excellent Protection from the Elements (ie. Fire)
- Flexibility in Design

From a small innovative company to Europe's leading quality wood construction business in just 20 years, THOMA seeks to give you the healthiest living conditions with its HOLZ100 construction homes.

Built with 'Moon' Timber

'Moon' timber refers to wood harvested during the waning moon when the sap in the trees are at its lowest. The wood is then left to dry vertically, upside-down with, its bark and a few branches left intact. Gravity will pull what remains of the sap into the branches, which are then cut off. This process produces a superior quality wood that has no cracking, splitting, or warping, as well as no infestation of insects and longer durability. This process involves no use of toxins or kiln drying, thereby creating a lower carbon footprint. This is an ancient technique that has provided the same wood that created the 1,000 years old temples that still stands to this day in countries such as Japan.



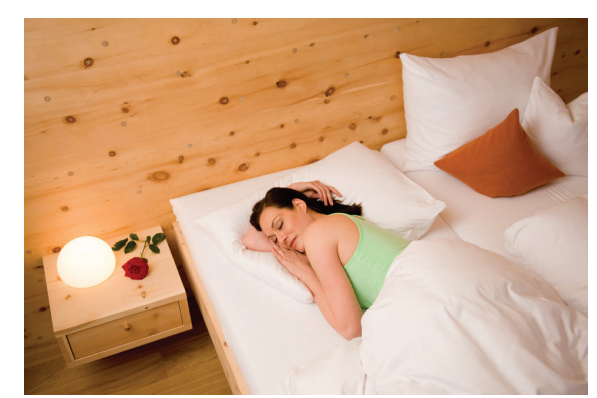
100% Renewable Resource

Build Your Dream Home with Holz100

Our goal is to build the healthiest houses from sustainable wood. We know that we can't continue to exploit nature to simply make profit. We looked at the marvels of nature and the trees that surround us and realized that they demonstrate the very things we search for in our products and technologies: waste-free closed loop recycling, self-healing and natural remedies, and energy independence based on intelligent use of solar and other sources of green energy. A HOLZ100 home is suitable for generations to come, because its components are based on nature's wisdom.

It has nothing to do with the idea of short-term consumption and disposable products. The house is built from solid wood using a new construction method – layers of solid wood connected with wooden dowels. As a result, the house warms up and cools down independently of any oil, gas, coal or electrical systems. It improves our health and our sleep. At the end of its life everything in the house remains a recoverable raw material that can be used over and over again. Rather than 'waste' we have health, true sustainability and energy independence.

Contact us— - and take the first step to a cleaner, safer, and better home!



Healthier living, better sleep

100% Wood

Many research studies in various countries have shown that living in a solid wood home brings about harmony and relaxation. It also slows down the heart rate, boosts our immune system, and provides restorative sleep at its best.

A HOLZ100 home is suitable for allergy sufferers because of the fungal resistance of the special wood we use, as well as solid wood's natural reduction of household dust.

Our houses come with a 50-year guarantee against mold and condensation. That is how confident we are in our construction.

Did you know...

That building materials such as adhesives, paint, paint strippers, furnishings, wood preservatives, and aerosol sprays all emit something called volatile organic compounds?.

Volatile organic compounds (VOCs) are emitted as gases from certain solids and liquids, some of which may have short or longterm adverse health effects. Concentrations of many VOCs are consistently higher indoors than outdoors (up to ten times!).

Health Effects May include:

- Eye, nose, and throat irritation
- Headaches, loss of coordination, and nausea
- Allergic skin reaction, emesis, epistaxis, fatigue and dizziness
- Damage to liver, kidney and the central nervous system
- Cancer in both animals and humans

HOLZ100 prevents all these problems! Call us!



Contact

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Natural Benefits of a HOLZ100 Home

Natural Climate Control

The mass of a HOLZ100 home makes the home pleasantly warm in winter and comfortably cool in summer. This natural air conditioning compensates for temperature and humidity fluctuations. HOLZ100 houses have a world record in thermal insulation, and therefore have minimal heating costs.

Extraordinarily Stable

The pure solid wood construction, untreated and free of toxic chemicals, provides an optimal indoor climate where walls are free from mould and condensation. The unique wooden-dowelled cross laminated construction results in no air leaks, no shrinkage and no thermal bridges.

Radiation Shielding

The solid wood structure of any HOLZ100 part in combination with the reflecting and absorbing properties of the wood shell minimizes the permeability of high frequency radiation (e.g. emitted from mobile telephone masts).

Soundproof

The solid wood walls of HOLZ100 offers excellent airborne and impact sound proofing. Additional requirements for soundproofing can easily be met by adding special structures, such as a 2-layer HOLZ100 sound absorbing wall.

Allergy-Friendly

The moon timber HOLZ100 uses is highly fungal resistant. Combined with solid wood's natural reduction to dust, this makes a HOLZ100 home ideal for allergy and asthma sufferers.

HOLZ100 Construction vs Standard Construction

Standard Wall

X Stud Wall

Made of regular framing lumber
• Susceptible to fire
• Susceptible to water damage
• Susceptible to fungus

X Vapour Barrier

Made of polyethylene and aluminum foil
• Susceptible to fire
• Releases VOCs

X Plywood

Made of wood and formaldehyde
• Susceptible to fire
• Releases VOCs

6 Layers with Many Components

X Drywall

Made of gypsum, plasticizers, foaming agents, ethylenediaminetetraacetic acid, silanes, paper and fiberglass
• Susceptible to fire
• Susceptible to water damage
• Susceptible to fungus and mould
• Susceptible to termites
• Releases VOCs

X Insulation

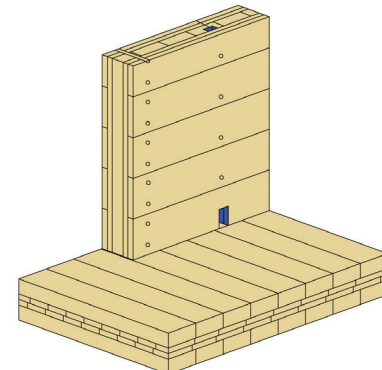
Made of fiberglass
• Susceptible to fire
• Susceptible to water damage
• Causes irritation upon contact
• Releases VOCs

HOLZ100 Wall

✓ 100% Pure Wood

• 3-4 times better heat insulation than conventional walls - up to 90% energy conservation
• No defective joints and leaks from using multiple layers of materials
• Record-breaking sound proofing
• Simplistic construction - one single material in one single form.
• Quick construction - a standard house frame only takes one day
• No VOCs

1 Component



1 Cubic Metre = 450kg

✓ Hazard Resistant

• 3-4 times better fire resistant than brick or concrete
• Highly water resistant
• Earthquake resistant
• High-frequency radiation shielding

✓ Allergen Free

• Natural dust reduction
• No hidden toxins
• Immune to pests
• Immune to fungus or mold

Processing

Once harvested, cured and cut, the timber boards are layered vertically, horizontally, and diagonally into compact assembly parts. Dust-dry beech wood dowels are then driven through the layers to connect them. Once in place, the dowels absorb residual moisture from the layers and swell up to connect permanently to the surrounding wood like branches and their tree. These dowels connect single layers of wood into one massive and thick block. These are the building blocks for all HOLZ100 homes. Since the walls are prefabricated, it reduces the construction speed greatly - a standard house only takes a few days.

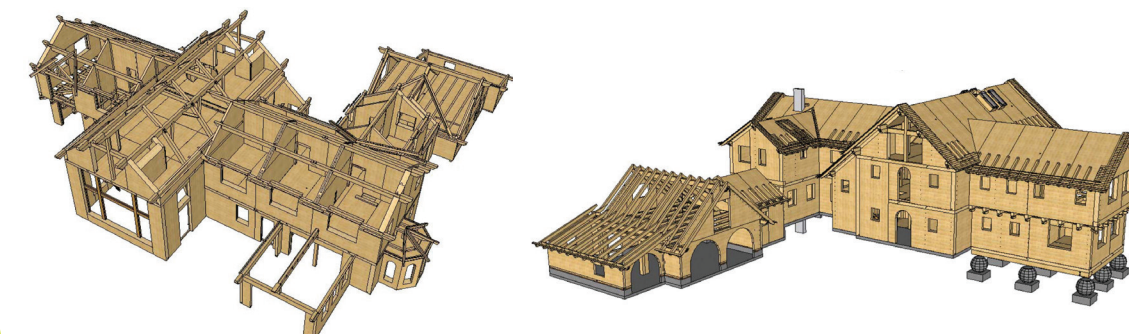


From Timber to House

The Making of a HOLZ100 HOME

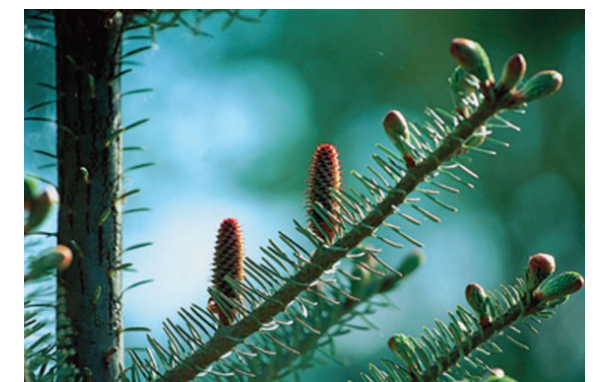


Production drawings are created according to customized individual plans and client requirements. The walls of the house are pre-cut with CNC milling and then shipped to the job site for assembly. Grooves and cut outs for electric wiring, windows, doors, and other construction details become part of the prefabricated blocks. This minimizes the efforts needed on site and helps save money and time in raising. This quick construction speed (as fast as a few days for a house) is a boon in wet and cold climates.



Midnight Harvest

Only renewable, FSC and PEFC certified locally grown timber is used for HOLZ100. The wood is harvested during the nights before the new moon when the sap is at its lowest. As a result, this wood offers almost no nutrition for pests. It is denser, and therefore naturally more durable and fungal/pest resistant.



Eco Wood

The energy consumed to manufacture HOLZ100 is extremely low compared to brick or glued wood-based materials; no energy-wasting furnaces or chemical glues are necessary. HOLZ100 walls are made exclusively from renewable raw materials. Our factory is the only one manufacturing homes that uses only solar energy and produces more energy than it uses.



Dr Erwin Thoma, inventor of HOLZ100



Dr Erwin Thoma with Frank Ghahremani, Canadian partner of HOLZ100

Fire, Earthquake, Storm & Flood Protection

HOLZ100 walls resist flames longer than any other building material. In case of fire, no poisonous vapours are released. HOLZ100 houses have survived numerous earthquakes in Japan without any damage. HOLZ100 houses have also survived the strongest storms in German coastal regions; they suffered no major flood damage and were easily habitable after flooding.



Test pieces of the solid timber element of the outer wall for HOLZ100 after 60 minutes subjected to a direct flame, at a temperature of approximately 900°C