What is PASSIVE?

"Our passive modern homes are luxurious havens that are as smart as they are beautiful. Put quite simply, passive is the right choice for the well being of your family and our planet."



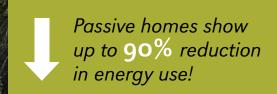


The passive home is healthy — for your family and the environment. Nontoxic building materials are used throughout. Moisture and pollutants are continuously removed from indoor air.

Because excellent indoor air quality is essential for health, a heat recovery ventilator maintains a gentle flow of fresh air while balancing heat and humidity. Fresh air flows into your home and mixes with existing air to maintain an even temperature. Your home will be free of

drafts, and opening the windows doesn't affect the ventilation system.

Passive homes are a haven for people with allergies and they can easily specify filters according to their particular medical needs.



Passive is SOCIALLY RESPONSIBLE.

The passive home is more than just sustainable. In fact, it's far greener than almost anything currently labeled "green," typically using net zero energy for heating and cooling.

assive homes are very well-insulated and virtually air-tight, which greatly minimizes the loss of heat. This means no furnace (you read that right) and extreme energy efficiency. All of the heating in a typical passive home can be met by a single 1000-watt heater. Heat from people, lights, appliances and the sun does the rest.

And in the hotter months, the home stays delightfully cool without the need for air conditioning.

Shading and well-planned window orientation helps to keep the house at a comfortable temperature. Passive homes provide substantial, ongoing savings on utility bills—up to 90% less energy consumption over conventional houses! Imagine what you could do with the monthly savings!

With global climate change and rising energy costs, there has never been a smarter time to build a high-performance, energy-efficient passive home.



What makes a "Passive" Home?

Here is a list of the features that make a passive home so healthy, comfortable, and sustainable:

1 SOLAR POWER SYSTEM

Increases energy independence, produces electricity from sun, and reduces carbon footprint.

HEAT RECOVERY VENTILATOR (HRV)

> Provides continuous fresh air, exhausts stale air, and recovers 90% of heat from exhausted air.

HIGH PERFORMANCE DOORS 💡 🚐 💥 Provides enhanced air sealing.

(3) HIGH PERFORMANCE WINDOWS 🕊 🚐

Increases comfort in home, decreases energy use and reduces condensation.

RECLAIMED MATERIALS

Reduces resource demand and adds character.

HIGH EFFICIENCY FRAMING 🅊 🚐 💥

24" on center framing uses less dimensional lumber and provides increased insulation and decreases thermal bridging.

4 AIR & MOISTURE BARRIER 9 💥 Water based liquid applied elastomeric barrier provides air tight construction and is made with 25% recycled content.

HIGH PERFORMANCE INSULATION 🥊 🚐

Enhances home comfort, keeps even temperature throughout, reduces heating & cooling load, and reduces stratification.

(5) INTERIOR AIR SEALING Eliminates drafts, saves energy, and keeps temperatures constant.

6 INSULATED EXTERIOR (OUTSULATION)

Provides super insulated exterior walls and breaks thermal bridge.

INSULATED FOUNDATION

Increases energy efficiency, keeps floor warmer, and reduces condensation.

LED LIGHTING 🌹 🧩

Provides highest quality efficient lighting, provides up to 25 year life span, and saves energy.

SIMPLE MECHANICAL SYSTEMS 🍟 🚐

Heat pump heating and cooling saves energy and inline hydronic or electric resistance heating elements.

RADIANT HEATING FLOORS 🅊 🚐

Zoned, point of use heating.

ECO-FLOORING 👨 🔔

Sustainably harvested and reclaimed wood floors improve air quality and reduce allergens.

ECO-CABINETS

Formaldehyde-free construction improves air quality.

7) DROUGHT TOLERANT LANDSCAPING

Conserves water.





SUPER INSULATED ROOF

SIPS provide vaulted ceilings with super insulation and high efficiency framing

ENGINEERED WOOD

Replaces old-growth lumber and reduces waste by using 30% more of each tree.

Point of use heating.

STRUCTURAL

INSULATED PANELS 🂡 🚝 🔆

SIPS walls reduce heating and cooling load, super insulated walls keep indoor temperature constant, and SIPS walls are stronger, straighter and more durable.

INDUCTION COOKING

Accelerates cooking time, eliminates carbon dioxide, and saves energy.

LOW OR NO VOC PAINT

HEATED TOWEL BAR 🥊 🚐

Improves air quality.

damaging to clothes.

Provides localized heat, heated towels and is programmable.

STRUCTURED PLUMBING 🕊 🚐 💧

Zoned hot water loops with recirculating

pumps reduce wait time for hot water. It saves energy and conserves water.

12 FRONT LOADING WASHER 🖞 💧 Saves energy, conserves water and is less

WATER CONSERVATION

ECO BUILDING MATERIALS

Provides natural light and saves energy.

DUAL FLUSH TOILETS

provides conditioned, sealed attic.

HIGH PERFORMANCE SEALED GAS FIREPLACE

Allows car charging using smart grid technology.

EXHAUST FANS IN GARAGE

energy independence.

15 ELECTRIC CAR CHARGER

(13) CONDENSING DRYER

Conserves water.

14 SOLAR HOT WATER SYSTEM

Does not require venting, dries clothing at lower temperature, and saves energy.

Utilizes sun to heat water (85%), provides

energy for home heating, and increases

Reduces carbon dioxide in house.

WEATHER STATION CONTROLLED IRRIGATION

Monitors weather and adjusts irrigation

system and conserves water.

16 INTEGRATED PAVERS Permeable pavers improve

landscape drainage.





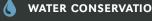




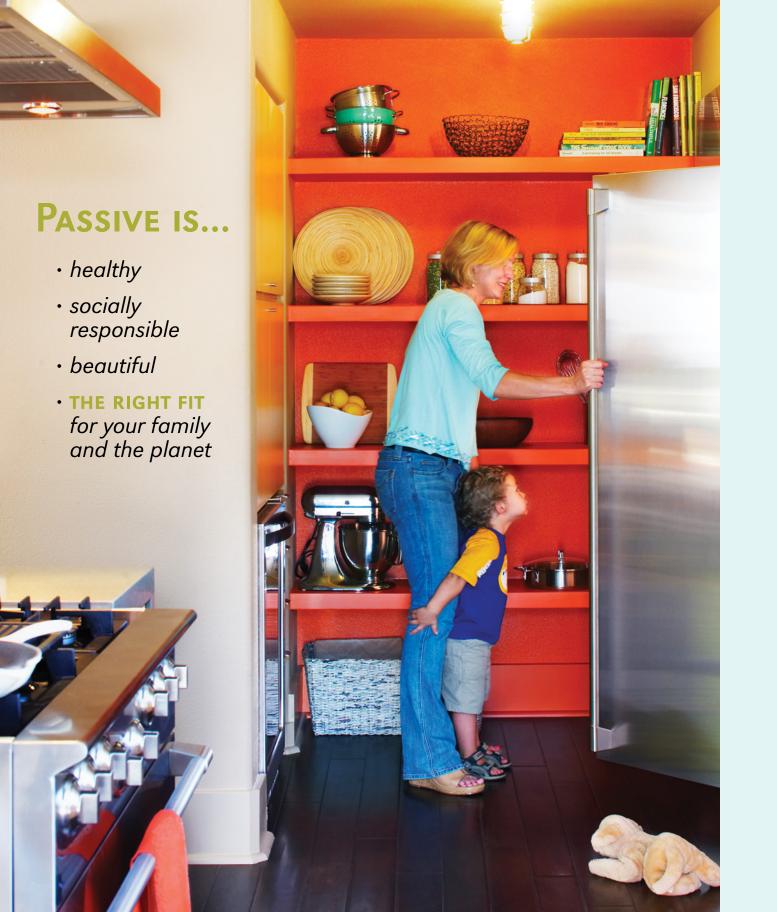












FIND OUT MORE...

Watch our videos online and learn more about what makes a home "passive."



HEAT RECOVERY VENTILATOR
Clarum.com/HRV

The keys to a passive home's efficiency are air tightness and the Heat Recovery Ventilator.



SOLAR THERMAL SYSTEM

Clarum.com/STS

The solar thermal system offsets roughly 80% of the energy needs for heating water.



AIR MOISTURE BARRIER

Clarum.com/AMB

Learn more about the use of SIPS panels, air barriers, and outsulation.



For more information about PASSIVE HOMES, follow our blog:

CLARUM.COM/BLOG







