

Guide to environmentally friendly sauna bathing



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Harvia products are designed and manufactured with the environment in mind. Sustainable choices are not only good for the environment, they are also good for people. The Harvia Cares symbol demonstrates that Harvia is committed to sustainable development.

Harvia's guide to environmentally friendly sauna bathing contains basic information on how sauna builders, renovators and users can do their share to reduce their ecological footprint. It's the small actions that count.



Building a sauna

Insulation

You should pay attention to moisture and thermal insulation of the sauna right from the structural design stage. Saunas that are built in conjunction with residential buildings must follow official building regulations.

When the sauna walls and particularly the ceiling are properly insulated, the building stays in good condition and the sauna's

energy consumption is low. If the sauna is used frequently, it is advisable to insulate the floor as well. One alternative is to install under-floor heating, which dries the floor quickly and also feels very comfortable for bare feet.

Ventilation

Make sure that the sauna has sufficient ventilation so that the woodwork stays in good condition. Good air quality also makes bathing more pleasant – the sauna bathers can enjoy fresh air that is easy to breathe.

Ventilation in the sauna room must be arranged in such a way that it does not increase the heater power requirement.

Materials

There are several different options available for the sauna's wood surfaces, ranging from different wood species and materials to different surface treatments. When selecting the materials, pay attention to their moisture resistance, resin secretion and heating properties. Surfaces have a longer

lifespan and the bathing experience is more enjoyable when the woodwork is kept in good condition. Maintenance includes regular washing and treatment with paraffin oil.



Sauna room size

When determining the size of the sauna room, you should consider the number of bathers and their personal sauna bathing preferences. Family saunas in single-family houses are usually sized for four people and in apartment buildings for two. The recommended minimum width of benches is 600

mm per person. The floor-to-ceiling height must be at least 1900 mm, but generally it is between 2000–2100 mm. To ensure even heating and reasonable energy consumption, the height should not be more than that.



Selecting the heater

- It is extremely important to select a heater with the correct output. The consumption of electricity or firewood increases if the heater is either too small or too large.
- If the walls or ceiling of your sauna contain non-insulated stone, glass or equivalent surfaces, the heater will require more power.
- For each non-insulated square meter, 1.2 cubic meters are added to the volume of the sauna.
- If the interior wall of the sauna room is non-insulated log, the corresponding factor is 1.5.
- **Consider your personal sauna bathing preferences.** For example, if you use the sauna often, choose a heat-storing heater that is always ready for bathing. Harvia Forte is economic heater for frequent use. It has an efficient thermal insulation which provides ample heat with little electricity. In between baths, the heater works as a normal radiator in the sauna. The heater's properties are the best in saunas with good thermal insulation and no massive materials (such as concrete, logs or glass blocks).



Sauna stones

Massive, split-face sauna stones are the only proper choice for all woodburning stoves and electric heaters, because they can store lots of heat and water evaporates efficiently from the wide surface of fracture. Angular split-face stones also allow loose placement of the stones.

Split-face sauna stones are an ecological choice: between quarrying the stones and piling them on the heater, split-face stones have less environmentally harmful stages than processed (such as rounded stones) or manufactured stones (such as ceramic stones).

Harvia sauna stones are available in two sizes. The 5–10 cm stones are suitable for wall-mounted electric heaters that have a lower power output. The bigger sauna stones, which are 10–15 cm in size, are suitable for woodburning stoves and larger electric heaters such as the Forte heater.

High-quality, undamaged stones enable a soft bathing experience. Fine stones have a beneficial effect on the lifespan of the heating elements.



Use of the heater

Proper maintenance gives the heater a longer lifespan. Change the stones at least every two years, and even more often if the sauna is in frequent use. Place the stones correctly. It is a good idea to rearrange the stones between changes, as

they tend to sink slightly over time. At the same time you can remove any small pieces of stone from the bottom of the heater.

Electric heater

- Do not heat the heater for longer than necessary.
- Turn the heater off when you are finished sauna bathing. It is practical to let the after-heat dry off the sauna's wooden surfaces.
- Do not heat the sauna too hot.
- When you replace the electric heater with a new one, take the old heater to a proper reception point for recycling.

Woodburning stove

- Start the fire on top of the firewood.
- The most critical phase for emissions is the starting of the fire and the first stage of burning. Starting the fire on the top is proved to be the best alternative, for then the wood components gasifying due to heat from the kindling flare up and nearly everything that gasifies also burns.



If you start the fire under the firewood, all the wood will heat up and gasify simultaneously. If this happens, the air in the chamber is not sufficient for controlled burning and some of the gas flows into the chimney and escapes outside without burning. This requires more wood and causes more emissions. Too slow combustion is also a bad alternative, because it does not allow the temperature to rise high enough and the burning is not efficient.

- Start off by laying small pieces of wood horizontally and ensure that air can circulate between them. Add larger pieces of wood for the second batch. Ensure that the chamber is not too full and approximately one third of its height consists of free airspace. Lay the kindling (fire-lighter, handful of sticks, birch bark or newspaper) on top of the wood and set it on fire.
- Add wood only on top of the embers.
- Burn the right kind of wood: dry, over a year old and untreated. Do not use materials that have a high thermal value, such as chipboard, plastic, coal, briquettes, pellets etc.



Sauna bathing

- You save energy if several people take a sauna bath at the same time because the heater does not need to be kept on for several hours.
- Do not heat the sauna too hot, 60–80 °C is enough.
- If the sauna room has a window, keep it closed during sauna bathing because an open window causes significant heat loss and increases the energy consumption.
- The wooden surfaces have a longer lifespan when you make sure that the sauna room is properly dried after bathing. Depending on the size of the sauna room, it is usually not necessary to leave the heater on – after-heat is usually enough to dry the room.

Showering after sauna bathing

Showering also requires heating energy and of course water. Use water sparingly and turn off the tap while washing.