

ENG

Wood

FRA

Le bois

GER

Das Holz

NED

Hout

ITA

La legna

© Tulikivi

Fireplaces



[www.tulikivi.com](http://www.tulikivi.com)

Wood:  
an economical and environment-friendly fuel...  
... if put to clever use!

WOOD IS AN ENVIRONMENT-FRIENDLY FUEL – ESPECIALLY WHEN USED IN YOUR TULIKIVI

The amount of CO2 emitted when you burn wood in your Tulikivi is the same as when wood decomposes naturally in the forest. The same quantity of CO2 is extracted from the air for photosynthesis when the tree is growing. This maintains a kind of balance and, in theory, makes the Tulikivi carbon-neutral.

Moreover, the use of wood energy helps maintain the forests and natural environment. Recovering energy from forest waste makes it possible to improve forest health.

It also enables us to preserve the countryside and creates a wider range of jobs for people working in rural areas. This boost to forestry work helps improve the quality of wood for the future and enriches forest resources.

The use of wood energy also makes it possible to use by-products and waste created by the “wood” sector as a fuel.

This is even more the case with Tulikivi, as all types of wood are suitable for a Tulikivi. The most important thing is to use dry wood. Logs needed to be finely split so that you obtain a good fire and high temperatures in the stove.

WHY USE DRY WOOD?

If the wood is damp, most of the energy that it contains is used to evaporate this moisture. This means that very little energy remains for heating. Moreover, damp wood will lead to incomplete and therefore inefficient combustion, which will cause pollution, clog up the appliance and flue (with bitumen and tar) and damage your stove.

Energy contained in the wood according to moisture:

	Moisture	Calorific value
Immediately after felling	50-60%	2.0 kWh/kg
After being stored for one year (under good conditions)	25-35%	3.4 kWh/kg
After being dried for several years (under good conditions)	15-25%	4.0 kWh/kg

WHY USE 25-33cm LOGS?

Proper combustion needs air and fuel (wood). The smaller the pieces of wood, the better the air-fuel ratio. The accumulation will increase and less wood will be needed to obtain the same amount of heat. Did you also know that 1m³ of 33 cm logs contains 30% more wood than the same volume of 1m logs?

This means that you may not be saving as much as you think by purchasing large-dimension wood...

HOW IS HIGH QUALITY DRY WOOD OBTAINED?

1. SPLITTING WOOD

Bark is like a raincoat, which protects the wood against the weather. If the wood is not split, the water that it contains cannot evaporate. Because of this, unsplit wood will still not be dry even after being dried for 3 years!


The more the wood is split and the smaller its dimensions (20-33 cm), the more quickly it will dry, as the water will be able to evaporate more rapidly.

2. DRYING AND STORAGE


Wood will only dry if it is well ventilated (for example, by placing it on a pallet, in order to avoid direct contact with the ground and allow air to circulate) and sheltered. Storage under a sloping roof is ideal (see diagrams). The drying time varies according to the variety, processing, climate and storage conditions. Wood that is split into 25 or 33 cm logs and stored under ideal conditions can be dried (resulting in less than 20% water content) in less than a year. In contrast, 50 cm logs will take several years to reach this level of moisture and the heart of the log will always

be too damp! It is therefore advisable to keep one year’s fuel supply at all times, in order to guarantee a continuous supply of fuel. Care should be taken, as dry wood stored in a cellar or garage will behave like a sponge and absorb moisture.

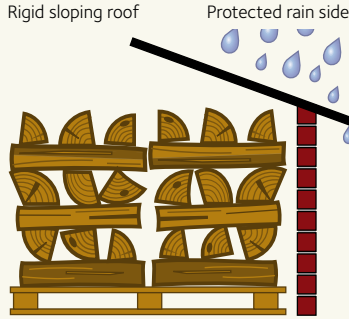
Very easily installable solutions are available for storing wood in reduced spaces and under the best conditions:



Wood poorly or completely unventilated.



Logs arranged “length-wise”, side by side, do not enable the wood to be well ventilated at all.



Rigid sloping roof      Protected rain side

Logs well arranged, protected and aired.







#### ENOUGH WOOD GUARANTEES EFFICIENCY:

Your stove only needs approximately 1% of its weight in fuel to be fully loaded. In other words, a 1 tonne stove will require 8-10 kg (maximum). If you burn more wood, this will not make the room any warmer, as stone, like a full sponge, is unable to accumulate any more heat. Moreover, you will risk damaging your stove...

Overloading your stove is pointless, as if the fire is too intense, the smoke disappears too quickly and the stone does not have sufficient time to absorb the heat. This means that if you have to burn 12 kg of wood in total, you will obtain far better heating results by burning three 4 kg loads rather than two 6 kg loads. The quantity of wood required for each season depends on a wide range of factors, including the energy consumption of the house and, of course, the size of the stove. Follow the instructions provided with your Tulikivi stove.



2 kg wood



4 kg wood

#### THE BEST TYPE OF WOOD FOR TULIKIVI IS THE LEAST EXPENSIVE!

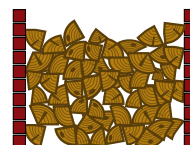
All types of wood are suitable for a Tulikivi! All that matters is that the wood is split and dry. In fact, thanks to complete combustion, it is completely safe to burn resinous woods in a Tulikivi. This makes it possible to burn (untreated) pallets, wood scraps and small branches. This enables some of our customers to heat their homes for less than 100 € per year!

#### CALORIFIC VALUE PER KG ACCORDING TO WOOD TYPE

Variety	Calorific value (in kWh/kg)	Calorific value (in kWh/m³ 20% moisture)
Pine	5.3	1.7
Fir	5.2	1.5
Birch	5.3	1.9
Alder	5.2	1.4
Aspen	5.1	1.3
Oak	5.1	2.1
Beech	5.3	2.1

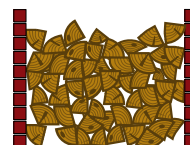
#### AVERAGE WEIGHT OF 1m³ DRY WOOD (20% moisture)

**Hardwoods**  
(beech, oak, hornbeam, ash, elm)



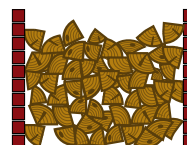
350 - 500 kg

**Softwoods**  
(willow, poplar)



250 - 350 kg

**Resinous woods**  
(pine, larch, spruce, fir)



250 - 400 kg

#### USING YOUR STOVE – MINIMUM EFFORT REQUIRED WITH TULIKIVI!

Wood heating does not always have a good reputation when it comes to the amount of work involved. In fact, traditional fireplaces and stoves consume large amounts of wood and have to be continuously supplied with fuel in order to obtain a constant

heat. An appliance with a yield of 50% (which is already high compared to less efficient stoves) wastes half the wood used. In addition, it has to be regularly supplied with more wood, and therefore requires constant attention. With a Tulikivi, you only have to make one fire (in the evening, for example) and the appliance will stay warm without any fire for 24 hours, so that you are free during the day. Tulikivi produces yields of over 80% from the wood, so that you will no longer have to bring in wood for nothing.

#### TAR AND FLUE FIRES: NOT WITH TULIKIVI!

Tar in wood stoves and flues is due to 2 main causes: the use of damp wood and/or incomplete combustion (for example, at night when the stove produces less heat with a reduced amount of fuel). The flue gradually becomes clogged and when the fire is lit again, the tar may ignite in the flue (chimney fire).

With Tulikivi, combustion is clean and complete. This keeps the flue clean and minimises the risk of flue fires. This is all the more the case, as a Tulikivi never has to burn slowly as there is no need to keep a fire going during the night so that you are warm in the morning!

