



PLAMEN SOUTH AFRICA

# FIREPLACE USER MANUAL

## USE DRY, SEASONED WOOD

It is essential to use dry, seasoned wood in your closed-combustion, wood log fireplace.

Seasoned wood has been cut at least a year (preferably two years) in advance and left to dry undercover. This wood should have a moisture content of less than 18%. Seasoned wood will feel light, show some signs of cracking on the log ends, and the bark should fall off easily.

Unseasoned wood contains a lot of moisture, which reduces the burning temperature and causes additional smoke and pollutants. High moisture content will result in excessive rusting of the metal components and lead to potential damage to the materials.

Unseasoned wood will also result in a low heat output. Do not use unseasoned wood in the fireplace.

- ✓ Using dry, seasoned wood makes the fireplace easy to use and maximises its heat output.
- ✓ Buy wood from a reputable, responsible firewood merchant who sources their wood from a sustainable plantation.
- ✓ Purchase your wood supply before winter starts and firewood merchants run out during winter.
- ✓ We recommend using Blue Gum or Black Wattle as they are alien vegetation and, because it is a medium-hard wood, it won't burn too quickly or too slowly.
- ✓ If firewood suppliers run out of dry wood, we recommend using compressed sawdust logs.
- ✗ Using wet or fresh wood will make lighting your fireplace a very frustrating process and result in poor heat output.
- ✗ Do not burn coal or any other materials in your fireplace.

## MEDIUM-DENSITY HARD WOODS

We recommend using medium-density woods like Blue Gum and Black Wattle as these woods are easy/safe to use in closed combustion fireplaces. They don't burn too fast and also not too slow. However, wood suppliers in SA often run out of stock of these dry seasoned woods in winter and customers look for alternative options.

## EXTREME HARD WOODS

Local hardwoods like Kameeldoring (Camelthorn), Sekeldoring (Sickel Bush) and Mopane have very low moisture content as they have dried naturally in the desert. They are also very dense (in the top dozen hardest woods in the world), releasing more heat per log and burning at very high temperatures. To avoid over-firing your fireplace and causing damage, do not overload it with logs.

These woods produce an orange, long-lasting coal, extending the time needed between loads.

In the cast iron fireplaces these very dense woods may burn less easily (this results in more of a smouldering fire with less flames, more smoke and insufficient heat output).

Therefore, we recommend using a 50% mix of the hardwood and a medium-density wood (or kindling) in the cast iron range to achieve a good fire with high heat output.

## STARTING A FIRE

### STEP 1: Clean and prepare

Before lighting your fire, make sure the ash box is empty, the glass is clean and soot free, and the air intakes are open.

### STEP 2: Light the fire

Use two pieces of log wood with a good amount of wood kindling (i.e.: thin pieces of dry wood) stacked on top. Use firelighters to light the kindling, which should light quickly and easily. This kindling fire will then light the larger logs below.

### STEP 3: Maintain the fire

Only add more pieces of log wood once the fire has been established and is burning well.

- ✘ Do not leave the door open. Only open the glass door briefly when adding wood.
- ✔ Always wear gloves. When adding wood, use a glove to prevent splinters and protect your hands from the heat.

### USING YOUR FIREPLACE FOR THE FIRST TIME?

The first few times you light your new fireplace, use a half-load of wood. The paint on the fireplace needs to cure and the unit needs to settle. There will be a visible hazy smoke and a slightly unpleasant smell from the excess oils burning off. Please leave your windows and doors open.

## RUNNING YOUR FIREPLACE

To control the fireplace and for it to operate correctly, it is far better to load your wood periodically with one good sized load every hour as opposed to adding small amounts of wood at regular intervals.

Once your previous load has burnt down to glowing orange coals, spread these coals across the bottom of the fireplace chamber and add your new load of wood on top.

The number of logs you add depends on the heat output that you require and the heating capabilities of your fireplace ([see the table on the right for our guidelines](#)).

Once the new load of wood is burning, close the air intake controls to the point where you have a slower flame.

When starting the fire on a cold day, add a good-sized load of wood and, after the first hour, repeat. Thereafter, if the room has reached a comfortable temperature, the hourly load can be reduced to maintain the desired temperature level.

### FIREWOOD LOAD PER HOUR

No. of 1kg logs / hr	Heat output / hr
2 pieces	6 kW
3 pieces	9 kW
4 pieces	12 kW
5 pieces	15 kW

- Wood is dry (less than 18% moisture content)
- Medium-density hardwood such as Blue Gum
- Logs are loaded once per hour and burnt up before being replaced with a new load
- One log of wood weighs  $\pm$  1kg
- Fireplace is operating at  $\pm$  80% efficiency

## DO NOT OVERLOAD YOUR FIREPLACE

You should adhere to the maximum kW rating of your fireplace when adding wood. For example, with a 9kW fireplace, you should not add more than 3 x 1kg logs per hour. By adding the correct amount of wood, you will ensure that your fireplace lasts for the long term. Overloading the fireplace causes damage to the unit and its flue pipes – shortening the lifespan of your fireplace.

## AIR CONTROLS

The air control regulates the amount of oxygen allowed into the burn chamber. After adding a new load of wood, you will need to open the air control and increase the oxygen flow to ignite the new pieces of wood.

Once the wood is burning well, you may close the air intake enough to slow the flames. By doing this, the wood will burn slower and last longer. Also, less heat is pulled up the chimney.

It is important to use the air controls correctly. If they are always left open (resulting in a constant, forceful fire), after prolonged use, the internal metals and parts will get damaged.

**TIP:** Once your last load of wood has burnt down to orange coals, use a stoker to break them up and gather them into a flat pile. Then open the air intake fully. This will burn down the last of the remaining coals and get the most heat from your final load. The next day, when the fire is cold, there should only be ash and a minimal amount of charcoal left in the chamber – lessening the amount to clean.



## FIREPLACE GLASS

The glass door is often an expensive part of your fireplace to replace so, please take care with it to avoid a costly replacement. The glass is able to withstand extremely high temperatures. However, if you do not clean your glass before every use, layers of soot will build up over time and could eventually ignite, causing the glass to crack. If you are using dry, seasoned wood and starting the fire correctly, then your glass should not get much soot build-up.

Please be careful you do not damage the glass door with a knock or impact. Consider putting your fireplace under your home insurance in case of accidental damage. If you find a crack in the glass door, please do not operate the fireplace until the glass has been replaced.

## FIREPLACE METALS

It is normal to have some rusting on the inside of the fireplace. High temperature oxidation of a metal is a corrosion process involving the reaction between the metal and the atmospheric Oxygen at elevated temperatures. There will also be some moisture in the fireplace from condensation of flue gases.

Be aware though if there are signs of excessive rusting. This may be a sign of moisture coming down the flue pipes due to an issue. Excessive rusting may also be a sign that wet wood is being burnt in the fireplace.

Rusting on the outside of the fireplace is less common. If your house is located very close to the sea or in an area that has high moisture levels then this may occur. Otherwise if moisture has been left on the surface of the fireplace.

In cases of rusting, high heat metal care products such as Fireheart Stove & Grate Polish can be used to renew and protect the metal.

## SERVICING YOUR FIREPLACE

To prolong the lifespan of your fireplace, we recommend that you have it serviced annually – preferably at the end of each winter. Services should be done by an experienced fireplace technician who has the knowledge to check the fireplace and flue thoroughly. The technician should pay particular attention to the fireplace metals and treat them with the correct products and polishes for protection and care.

## RECOMMENDED TOOLS & CLEANING PRODUCTS

The following products are available from most hardware and firewood suppliers.



Kindling wood



Ash vacuum



Fireplace glass cleaner



Leather gloves