

Why are ultra-low emission burners better for air quality?

Both laboratory and in-situ real-life testing has shown that ultra-low emission burners (ULEBs) produce less pollution per kilogram of wood burnt compared to 'low emission' woodburners.

All woodburners emit pollution when used, unfortunately no one has yet invented a 'zero-emission' solid fuel burner.

The availability of ULEBs means that Council was able to make a change to Nelson's Air Quality Plan to allow more flexibility and choice in our less-polluted airsheds.

ULEBs must meet some of the strictest emissions and efficiency standards in the world. Smoke from home heating using wood and coal causes the majority of our region's winter air pollution.

Worldwide research shows conclusively that all forms of air pollution, including from wood burners, are dangerous to human health.

Council encourages the use of low and ultra-low emission burners where possible, along with good wood and smoke-free burning techniques.

Keeping our air as clean as possible is especially important during winter when more people are burning solid fuels to keep warm. People with lung damage and other health conditions are more susceptible to infections such as colds, influenza and COVID-19.



Fire needs air!

If you're keeping your home warm using a woodburner, you can get a better result (more heat for less wood) if you make sure your fire has good air flow.

Shutting the fire damper down is like trying to breathe through a straw – hard work! Getting the balance of air right is important. Aim for a good hot fire, and regulate the heat output by adjusting the amount of wood you put on rather than reducing the air flow.

Other great tips for your winter burning

- Burn wood that is less than 110mm in diameter.
- Use the right wood at the right time – lighter wood (often called 'softwood') like pine is good for making kindling and getting a fire started. Once the fire is well established, denser wood (hardwood) will burn for longer and give more heat. If you can, use wood from plantation forests (for example pine and gum) rather than native woods like Mānuka.
- Keep the air setting high enough for a clean burn – too little air produces smoke rather than heat.
- Don't burn chemically treated or salt impregnated wood like driftwood – they can corrode your wood burner and flue, emit toxic gases and leave toxic residues in the ash and flue.

(Source – energywise.govt.nz)

Learn how to light a fire cleanly and efficiently with a helpful video from the New Zealand Home Heating Association at:

nelson.govt.nz/burn-smoke-free

Don't burn treated wood

The safest and only timber to use in your fireplace or BBQ is natural, dry, 100% untreated wood.

Wood treated for outdoor use such as fencing, decking, outdoor furniture or cladding is harmful to people and the environment when burned.

What happens when treated wood is burned?

Burning treated wood releases poisonous chemicals like arsenic into the atmosphere that can cause health problems if inhaled. Arsenic can also build up in the ash from the fire and be inhaled or contaminate the disposal area. Vegetables and fruit trees can even absorb these pollutants if the ash is deposited onto a garden area. This can lead to contaminated produce that can cause people to become ill if eaten.

Is it safe to burn treated wood in an enclosed fireplace or wood burner?

No, it's not safe. Burning treated timber inside a wood burner or enclosed fireplace can result in high levels of arsenic inside the home, as arsenic

will be released into the atmosphere during burning or when woodburners are loaded or cleaned.

What other types of wood are unsafe to burn?

These wood products also release dangerous chemicals when burned:

- Any wood product with a coating, such as melamine or formica
- Painted, stained or varnished wood
- MDF or custom wood, chip board or plywood

How do I safely dispose of off-cuts of treated or painted wood?

All treated, coated or manufactured wood products should be taken to the transfer station to be disposed of.

For a reliable, safe source of wood, visit one of Council's Good Wood suppliers, and remember, if in doubt, throw it out!