

# PROTECTING YOUR THATCHED HOME



**NFU Mutual**  
HOME INSURANCE

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# PROTECTING YOUR THATCHED HOME

If you have a thatch roof, or you're thinking of buying a thatched home, you might be concerned about the risk of fire.

When a thatch roof does catch fire, results can be devastating, leaving the property partially or totally destroyed. However, the good news is that managing the risks isn't difficult. It's important to understand the dangers and take some simple steps to address them.

Please note thatch conditions will apply to properties with thatched roofs. This means that there are additional requirements and responsibilities for homeowners with thatched properties, due to the unique maintenance and fire safety considerations associated with thatched roofing. We believe it's important for our customers to be aware of these requirements to ensure the safety and longevity of their homes.

The purpose of this guide is to explain the main areas of fire risk, provide practical fire safety advice and useful industry contacts.

# GENERAL FIRE SAFETY ADVICE

## **Fire prevention**

- Fit smoke alarms where you can hear them, and check them every week. The best alarms are mains powered and linked, so when one goes off, they all do. For battery-powered alarms, ensure the batteries are replaced regularly to maintain functionality.
- Install smoke alarms in your roof voids – smoke in the attic or loft could be a warning sign of a cracked chimney.
- Install a loft hatch if you don't have one. Good access to roof voids makes it much easier for the fire service to tackle a blaze. You may need permission to install a loft hatch and you should contact your local conservation officer before commencing any work. The minimum recommended size is 600mm x 900mm.
- Make an escape plan and make sure all your family members and visitors know it. Write it down, display it somewhere prominent and check it regularly.
- Keep your keys in a specific place and make sure the whole family knows where that is.
- All chimneys used for open fires, wood burning stoves, or other burners must be maintained in good condition. This includes ensuring the spark arrestor and the entire length of the flue are in proper repair. Chimneys should be swept twice a year – once before autumn/winter use and again

before spring/Easter use. Additionally, bird guards must be installed on all active chimney tops.

- It is recommended to avoid using paper or cardboard to light your fire or stove. Once the fire is successfully lit, the air vents should be adjusted and reduced accordingly.
- If any chimneys in use do not extend at least 1.8 metres above the thatch ridge, their height should be increased as necessary, subject to obtaining planning approval or listed building consent.
- For added safety, please ensure that any recessed lighting beneath the thatch roof is fitted with intumescent covers or uses LED bulbs, which help lower the risk of ignition.
- Keep your escape routes clear. The best escape route is the normal way in and out of the house, but choose a second route in case this one is blocked by fire.
- Make a list of valuables and where to find them. A thatch fire may take longer to get under control, and the fire service is trained in salvage operations. Prepare a salvage plan and arrange somewhere secure to store your valuables after they are salvaged.
- If carrying out work in your roof space, make sure blowtorches or other heat equipment that could create sparks or heat are not used at any time.
- Don't start a bonfire within 100 metres of your home – sparks carry easily in the wind – and never leave fires, candles and other objects with fire raising ability unattended when in use. Also, ensure that fire pits, chimeneas, and similar items are kept at a safe distance from the thatched property.

- If you install security lighting, ensure lamps are at least a metre away from any thatch, and where possible, use LED alternatives. Avoid placing high-wattage halogen units in close proximity to the thatch.
- Storage of combustible materials below the thatch increases the risk of ignition and fire spread and may aid vermin access to the roof. Waste bins should not be stored under the thatch and only metal waste bins should be used to house any ash, coals or spent material from an open fire or wood burning stove, and such material should be disposed of separately from other household waste.

### **In a fire situation**

- Keep calm and act quickly. Alert everyone in the property and get everyone out.
- Don't waste time investigating the fire.
- Don't try to tackle the fire yourself.
- Shut doors as you leave.
- Dial 999 and do not go back inside the property. Wait for the fire and rescue services outside, at a safe distance from the fire.

For dealing with small fires, such as a rug catching fire, you should keep a minimum of two, 6 litre water or 2 litre water mist fire extinguishers in your home and a fire blanket in the kitchen. All fire extinguishers and the fire blanket must meet current British Standards.

Speak to your local Fire Officer for further advice. You can also get more information from contacts listed at the end of this guide. The Government's official fire advice, Fire Safety in the Home, is very helpful.

# USING AN OPEN FIRE, WOOD BURNING OR MULTIFUEL STOVE

Using an open fire or stove safely in a thatched home is straightforward, as long as you follow some simple tips.

## Do:

Try to ensure all chimney tops are at least 1.8m above the thatch. This distance makes sparks that may escape more likely to die out before they settle on the thatch. The deeper the thatch around the chimney, the greater the risk of fire. You may need planning or conservation approval if you need to raise the stack height or reduce thatch layers. If you cannot increase the distance between chimney top and thatch, remove any capping devices on your chimney, as they tend to deflect sparks downwards. Additionally, remove any solid-topped cappings and replace them with open mesh bird guards. If any spark arrestors cannot be accessed for cleaning, they should be removed.

Before having any thatching work, chimneys should be visually inspected for their condition and, where appropriate, any repair work carried out **prior** to the thatching works. If all the thatch is being removed at the time of re-thatching, then the whole chimney should be inspected while exposed, and any work needed carried out. Additionally, if all of the thatch has been removed, consider installing a fire barrier in accordance with the Dorset Model.

Get a professional chimney sweep to clean your chimneys at least twice a year. Do this before any autumn/winter use, and if your stove has been in consistent use over winter, a second sweep before Easter is also advisable. You should ensure that they have Public Liability Insurance as a matter of course. There are several trade bodies for chimney sweeps who you may contact for advice and details of a sweep near to you. Some main ones are listed in the Useful contacts section.

**Do:**

Have your flue and chimney endoscopically/CCTV inspected to ensure that the brick or stonework and any flue lining is in good condition, especially where it passes through the thatch. Any gaps or cracks should be repaired immediately. There are a number of companies that offer inspections at a reasonable price, we've named two in the 'Useful contacts' section on page 24. The person doing this should be a registered heating engineer, a member of HETAS, or the National Association of Chimney Engineers.

If you intend on having a wood burning or multifuel stove, it should be installed by a qualified installer, ideally a member of HETAS. Any wood burning stove should preferably comply with Approved Document J: Combustion appliances and fuel storage systems (gov.uk), and certification of completion should be retained on file.

If you are using a stove, consider installing a flue pipe thermometer, stove heat monitor, or additional temperature monitors. They're useful to check your stove, flue and chimney temperatures are not exceeding normal parameters. Two companies who install such systems are listed in the Useful contacts section on page 24.

If you have a wood burning stove, use hard woods that have been seasoned for at least two years and have 20% moisture content or less. If using a fire, look for the 'Ready to burn' accredited mark which shows that the wood doesn't hold too much moisture, which could lead to a chimney fire. Always use your stove according to manufacturer specifications. It is recommended that seasoned logs are not stored in close proximity to any wood burning stove in use.

Start your fire with commercial firelighters and very dry, small logs. Kindling can be used but avoid smaller sticks, twigs and shavings, as they can produce a surge of sparks. It is also recommended to avoid using paper and cardboard for lighting fires. Once the fire is lit and established, reduce the air supply to maintain control.

Make sure flames in any open fires and stoves are extinguished before you go to bed, or leave your home for any length of time. Some fuels can still give off heat for 24 hours after a flame has been extinguished, so keep any stove doors and vents closed to reduce oxygen levels to the fuel.

**Don't:**

Burn paper, cardboard, coniferous wood, builders' wood waste or use your stove as an incinerator for general waste material.

Burn wet or unseasoned wood, as this would leave flammable tar deposits in the flue, and may damage your flue liner.

Store fuel, wood or combustible materials in contact with the stove.

Fit spark arrestors to chimneys without consulting your local fire service. If you do have them, ensure they are cleaned thoroughly, at the same time as sweeping the chimney.



# CHOOSING A STOVE SYSTEM

Many thatch fires are due to the use of wood burning or multi-fuel stoves, and result from a spark or ember emanating from the chimney, and landing on the roof. Stoves generate a lot of heat, so it's important that the stove is used in accordance with the manufacturers' instructions, and that the stove is suitable for the size and specifications of the property.

A stove should only be considered as a heating source if other options are not viable. Traditional open fires are preferable to stoves in thatched properties where solid fuel heating is required.

### **Stove system positive features guide:**

- When choosing a stove, it's important to select an output that suits the size of your room. A stove with too high a kilowatt output may make the space uncomfortably hot, while one with too low an output may need to be run at maximum settings more often to provide enough warmth.
- Choose a stove with a design that does not permit exclusive under-fuel venting, either by legitimate (vent control) or illegitimate means (opening ash pan door with fuel loading door closed). If a controlled under-fuel vent is provided to assist in lighting the stove, this should automatically reset to a safe operational setting without requiring human intervention.
- Fit a stove pipe temperature monitor.
- Use flue liners that reduce the speed of flue gas, such as wide-bore flue liners, preferably of the rigid insulated variety.
- If you're considering a bird guard, a mesh top variety fitted to the top of the stack or pot would prevent nesting and accumulation of combustible materials at the pot top.
- Look for the maximum possible separation between pot top and thatch.
- Opt for a stove, flue, pot and bird guard design that supports good access for camera inspection, sweeping, and cleaning.
- Favour stove designs that present a clear view of the fire (clean glass), which makes monitoring the fire easier, without needing to open the door and introduce more air.

# STOVE DESIGN

Choosing the right stove for your property should include the following three key considerations:

- Power output and the space to be heated.
- Fuel required – should it be wood or multi-fuel.
- Stove design and ventilation.



## Wood burning stove flue thermometers and heat detection systems

There are several products on the market that can detect when your chimney flue is becoming dangerously hot. Thermometers designed for stove pipe or stove top fitment, feature a gauge indicating the optimum operating temperature. If the stove is running too cool it can increase the risk of tar deposits forming within the flue whilst, if running too hot, the risk of sparks and embers being ejected from the chimney increases.



Operating the stove within the optimum zone, will ensure efficient burn and fuel use. Some heat detection systems can produce audible alerts when a pre-set temperature is reached, and stove thermometers indicate whether your system is within or outside normal parameters. These solutions can prompt more efficient use of the stove by not over fuelling or having excess air flow and can also enable prompt action such as dampening your stove or fire by closing down the air supply, which can prevent a major fire; saving your home and treasured possessions, but more importantly, saving lives.

Before installing any system, please talk to your NFU Mutual insurance adviser.

# FLUE LINERS

Old and inappropriate flue liners provide inadequate fire prevention. It is recommended a professional installer checks your flue regularly to ensure it is adequate for your stove or fire.

If you're thinking about re-lining your chimney, consider one of the following options:

- A lining made of pumice, clay, ceramic or concrete.
- A twin walled rigid system – a steel inner and an outer lining filled with rockwool.
- A steel outer and ceramic inner lining filled with rockwool.



The most suitable flue liners for thatch properties are rigid, insulated ones, which are capable of being correctly supported and centralised.

Where there's no alternative to a flexible liner, it must be fully bracketed, centralised and supported along its length. You should also use a proprietary insulation material where possible to give further insulation. A chimney specialist with experience of thatched homes will be able to give you advice about your particular setup.

If you intend carrying out any repairs to, or replacing an existing flue liner, and your home is a listed building, then approval needs to be obtained from the Local Conservation Officer, or relevant authority.

An incorrectly fitted flue liner can cause a thatch or chimney fire, so when you're having one fitted, be sure to use an installer accredited by a professional body such as HETAS or the National Association of Chimney Engineers – see Useful contacts section on page 24.

# THE DORSET MODEL

Most new thatched properties and extensions are built to The Dorset Model, a set of building requirements for thatched properties that aim to improve fire protection. In addition, if a property is rebuilt following a fire, it will be required that the rebuild incorporates requirements of The Dorset Model.

If you're having a thatched home built or are in the process of completely renewing your thatch, ask your architect or builder to list all the materials used on the building specification to separate the thatch from the rest of the structure.

There are a number of key requirements and recommendations:

- Rafters are to be overdrawn with a minimum 30 minute fire barrier, which should be water resisting. A number of fire and rescue services recommend a 60 minute fire barrier protection.
- All chimneys, including their pots, should terminate at least 1.8m above the height of the ridge.
- A domestic mains and battery powered interlinked smoke alarm system, with at least one smoke alarm in the roof void, must be installed.
- No recessed lighting in the ceilings below the thatch, and any light fittings within the roof space should be in a bulkhead fitting.

All work being carried out in accordance with The Dorset Model must be discussed with your local Building Control. See Useful contacts section on page 24 for additional information.



# TYPES OF THATCH

Traditionally, thatch roofs are made out of one of three materials: long straw, combed wheat reed or water reed.

The various types of thatch have different life spans, and some roofs last longer than others. The ridge is usually the first part of a thatch roof to need repairing.

There are other factors that influence the life of a thatched roof. Its pitch and design, location and maintenance, all play a part. Where there is a prevailing wind, the surface of thatch facing it would suffer greater wear. The box below provides an indication of average life expectancies for different types of thatch.

|              |                                                     |
|--------------|-----------------------------------------------------|
| Ridges       | 10 – 15 years, depending on style and material used |
| Long Straw   | 15 – 20 years                                       |
| Combed Wheat | 20 – 30 years                                       |
| Water Reed   | 30+ years                                           |

It is advisable to consult a competent, professional thatcher, if you are thinking of having any thatch roof work done.



When considering replacing the thatch roof with a different material, you may need to consult your Local Authority, and if the property is listed, your local Conservation Officer, for approval.

The National Society of Master Thatchers, referenced in the Useful contacts section on page 24, may help you identify a thatcher in your local area.

# CARING FOR YOUR THATCHED HOME

Easy tips to monitor and prolong the life of your thatched roof:

- Take time to examine your roof's condition periodically, for visible signs of thatch damage or problem areas.
- Look out for signs of wear around the chimney and 'valleys', as the thatch positioned in these areas will deteriorate faster than the rest of the roof.
- After a hot summer, the cement fillets between the thatch and any chimney stacks or other roof joints, may have cracked in the heat, and should be checked to ensure that they remain in good order, otherwise rain water ingress may occur.
- If fixings are exposed all over the roof, the thatch is nearing or has reached the end of its life and requires replacing.
- If 'gullies' (vertical deep patches of rot) are appearing, a professional thatcher should be looking at your thatch.
- Dark, wet patches on the eaves could be a sign that the thatch is leaking. A possible reason is buildup of moss which means the thatch can't 'breathe', and therefore is not drying out properly.
- Look out for overhanging trees and ensure those branches are removed. Leaves can get trapped between the wire netting and thatch, leading to premature rot. Climbing plants should be removed as well. They provide an access point for vermin to the roof and can also end up growing between the thatch and rafters, adding challenges to maintenance operations.

When considering having work done to your home or roof, always appoint qualified professionals and ensure they hold adequate liability insurance. It is recommended all thatch roof work is assigned to a professional thatcher, however small a task.

### **Dealing with wildlife and vermin**

Uninvited guests, such as nesting birds, mice, rats and even squirrels may choose to take up residence in your thatched roof. Wire netting could act as a first barrier, however regular visual inspections of the roof is recommended; looking out for loose clumps of thatch and holes which may be an indicator of animals nesting.

To address the issue and prevent further damage or danger to electrical wiring, consult a thatcher or Pest Control Officer as soon as you identify it.



# THATCH FIRE PREVENTION

## 10 POINT CHECKLIST

1. **Chimney maintenance** – has it been swept and an endoscopic inspection carried out within the last 6 months? ☐
2. **Chimney condition** – is it in a good state of repair and do you have an appropriate liner installed? ☐
3. **Smoke detectors** – do you have smoke detectors on each floor of your home, including loft space (where accessible) and are they working? ☐
4. **Monitoring** – do you have a flue thermometer installed? ☐
5. **Stove** – are you familiar with your stove's manufacturer user instructions? ☐
6. **Using your stove** – are you using appropriate ignition materials? Are you staying with the fire during ignition and refuelling until the ventilation control and operating state return to normal once the fire is established? ☐

7. **Prevention** – are you ensuring any flames are extinguished and oxygen levels are low (by closing vents or stove doors) before leaving the property or going to bed? ☐
8. **Electrics** – has your home's electrical system been inspected in the last 10 years? ☐
9. **Treatment** – have you had your thatch treated with a fire resistant spray or had a fire resistant barrier fitted? ☐
10. **Escape route** – do you have your exit route clear and is everyone aware of the location of the keys? Do you have your valuables list and salvage plan in place? ☐

# USEFUL CONTACTS

**Approved Document J – Combustion appliances and fuel storage systems**

([gov.uk](http://gov.uk))

**British Flue and Chimney Manufacturers Association**

([bfcma.co.uk](http://bfcma.co.uk))

**Fire Protection Association** ([thefpa.co.uk](http://thefpa.co.uk))

**Government's Fire Safety in The Home** ([www.gov.uk/government/publications/make-your-home-safe-from-fire](http://www.gov.uk/government/publications/make-your-home-safe-from-fire))

**Historic England** – Listed/graded properties

([historicengland.org.uk](http://historicengland.org.uk))

**Listed buildings England/Wales/Scotland**

([britishlistedbuildings.co.uk](http://britishlistedbuildings.co.uk))

**Listed buildings Wales** ([cadw.gov.wales/advice-support/placemaking/legislation-guidance/listed-buildings](http://cadw.gov.wales/advice-support/placemaking/legislation-guidance/listed-buildings))

**Listed buildings Scotland** ([historicensevironment.scot](http://historicensevironment.scot))

**The Dorset Model** ([www.thatchadvicecentre.co.uk/thatch-information/technical-information/dorset-model](http://www.thatchadvicecentre.co.uk/thatch-information/technical-information/dorset-model))

**Heating Equipment Testing and Approval Scheme**

([hetas.co.uk](http://hetas.co.uk))

**National Society of Master Thatchers** ([nsmtltd.co.uk](http://nsmtltd.co.uk))

**National Association of Chimney Engineers** ([nace.org.uk](http://nace.org.uk))

**Thatch Fire Prevention (chimney heat detection and endoscopic camera inspections)** ([thatchfireprevention.co.uk](http://thatchfireprevention.co.uk))

**National Association of Chimney Sweeps** ([nacs.org.uk](http://nacs.org.uk))

**Guild of Master Chimney Sweeps**  
([guildofmasterchimneysweeps.co.uk](http://guildofmasterchimneysweeps.co.uk))

**Association of Professional and Independent Chimney Sweeps**  
([apics.org.uk](http://apics.org.uk))

**Institute of Chimney Sweeps ICS** ([icsweeps.com](http://icsweeps.com))

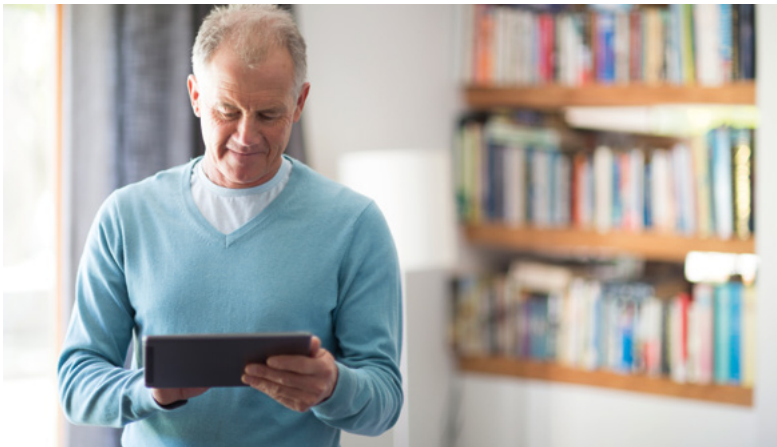
**Solid Fuel Association SFA** ([solidfuel.co.uk](http://solidfuel.co.uk))

**S.M.F. Crouch & Co Ltd (Fire Retardant Spray)**  
([thethatcher.co.uk](http://thethatcher.co.uk))

**Specflue (Flue & Chimney Systems)** ([specflue.com](http://specflue.com))

**Thatching Advisory Services – advice on thatch fire safety and supply of thatch fire protection barriers and systems**  
([thatchingadvisoryservices.co.uk](http://thatchingadvisoryservices.co.uk))

**Ready to burn certification** ([readytoburn.org](http://readytoburn.org))



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