

Guide to thatched buildings (The 'Dorset Model') new properties and extensions

Technical guidance for building control surveyors, designers and installers



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Introduction

These guidelines outline the requirements for extending or constructing a thatched roof building situated less than 12m from the boundary. Each proposal has to be considered upon its merits and early consultation with your local authority building control team is recommended.

This approach to thatched buildings is encouraged where compensatory requirements are considered acceptable to achieve compliance with the Building Regulations.

Requirements

- A. Rafters are to be overdrawn with a minimum 30 minute fire barrier (integrity and insulation) and this barrier should also be water-resisting. 50 x 25 battens are recommended on a microporous boarding to allow the thatch to breathe. (The Dorset Fire and Rescue Service recommends a 60-minute barrier under the thatch for property protection).

The use of a flexible material or cavity foam as a fire-resisting barrier is not considered acceptable for the purposes of the Dorset Model.

- B. The chimney, including the pot, should terminate at least 1.8m above the height of the ridge. Due to the risk of condensation forming as hot gases cool, the chimney pots should be limited to a maximum height of 600mm.
- C. A domestic mains and battery powered, interlinked smoke alarm system will be required with one smoke alarm fitted in the roof void. The system should generally be in accordance with that specified in Approved Document B to B.S. 5839 Pt. 6: 2004
- D. A terrace may not consist of more than three thatched dwellings together.
- E. The use of intumescent mastic is required to help seal the fire barrier along all its junctions.
- F. The written comments of the adjoining property owner may be requested by the local authority for consideration.

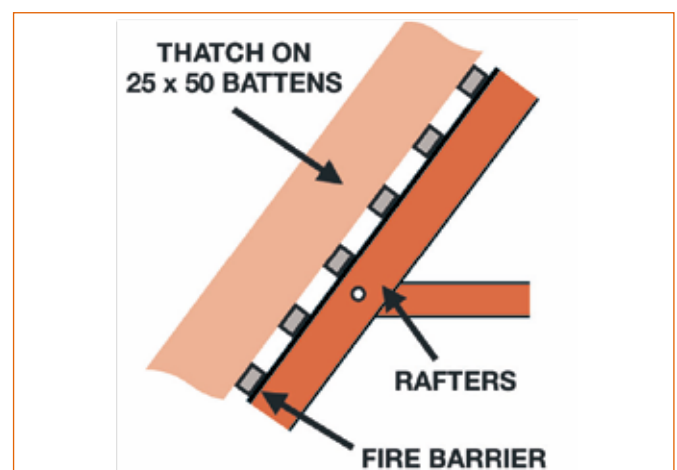
In addition to the measures that may be required by building control there are a number of additional recommendations that you should consider at an early stage.

Recommendations

- A. The provision of a loft hatch is recommended for firefighting purposes. The minimum recommended size is 600mm x 900mm.
- B. Advice should be sought from an approved electrical contractor regarding the most appropriate type of wiring system. Effects from rodent damage and straw debris need to be considered (the National Inspection Council for Electrical Installation Contracting has issued guidance to its members).
- C. Recessed lighting is NOT recommended in any ceilings below the thatch. Light fittings within the roof space must be in a bulkhead fitting. External floodlights should not be located under the eaves of the thatch.
- D. Spark arrestors on the flues are NOT recommended because they can clog and restrict the flow of flue gases.
- E. It is recommended that an external water tap supplied from the rising main is fitted with a hose capable of reaching all parts of the roof.
- F. Any metal plumbing in the roof space should use compression joints to avoid the use of blow torches.
- G. In order to achieve a 'U' value of 0.2w/m²K for thatched roofs, the following was taken from CIBSE Guide A3:

Reed = thermal conductivity 0.09 and a resistivity of 11.1
Straw = thermal conductivity 0.07 and a resistivity of 14.3

This gives a 'U' value of 0.2/m²K for 450mm of reed and 350mm of straw. On this basis ceilings may require additional insulation.



Statistics show that 70% of fires in thatched homes are caused by solid fuel-burning appliances.

The installation of a wood burner or a multi fuel appliance requires great caution due to the extreme temperatures generated over prolonged periods.

Fire Service personnel may need to consider how best to deal with thatch fires incorporating a fire barrier. The barrier must remain unbroken during firefighting operations.



Chimney should terminate at least 1.8m above ridge height.

Key points to consider:

- Rafters are to be overdrawn with a minimum 30-minute fire barrier (integrity and insulation) and this barrier should also be water-resisting
- The chimney, including the pot, should terminate at least 1.8m above the height of the ridge.
- A domestic mains and battery-powered, interlinked smoke alarm system will be required with one smoke alarm fitted in the roof void
- A terrace may not consist of more than three thatched dwellings together
- The use of intumescent mastic is required to help seal the fire barrier along all its junctions

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The 'Dorset Model' has been jointly produced by the local authorities across Dorset in conjunction with Dorset Fire & Rescue Service, the National Society of Master Thatchers and, after consultation, with the National Inspection Council for Electrical Installation Contracting and the Building Research Establishment Ltd on the basis that evidence has shown that thatch can be made sacrificial in the event of fire. It is endorsed and promoted by LABC as best practice.

Further guidance and useful links

Approved Document B

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Whilst every care has been taken to ensure that the information contained in this guide is correct, Dorset Technical Committee cannot accept responsibility for any error or omission which may occur.

LABC is a membership organisation representing all local authority building control teams in England and Wales who work with industry and building professionals to ensure compliance with Building Regulations. We are a not-for-profit organisation dedicated to promoting public sector expertise.

There are 3,000 surveyors working in local authority building control providing a consistent national service that is delivered at a local level. To find your local authority building control team please use our postcode search by visiting our website: www.labc.co.uk

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