

Specification for

Residential park homes

ICS 43.100

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The preparation of this British Standard was entrusted to Technical Committee B/511, Buildings mobile and temporary, upon which the following bodies were represented:

- British Holiday and Home Parks Association Limited
- Camping and Caravanning Club Ltd.
- Caravan Club
- Chief and Assistant Chief Fire Officers' Association
- Department of the Environment [Central (DCSS Fire Branch)]
- Department of Transport (Highways Agency)
- Home Office
- Institution of Electrical Engineers
- Institution of Environmental Health Officers
- LP Gas Association
- Local Authority Organizations
- National Caravan Council Limited
- National Prefabricated Building Association Ltd.
- Society of Motor Manufacturers and Traders Limited

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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
Introduction	1
1 Scope	1
2 References	1
3 Definitions	2
4 Design	2
5 Materials	6
6 Internal equipment	7
7 Installation of services	7
8 Identification	8
9 Warning notice	8
10 User's handbook	9
Annex A (informative) Chassis holding down detail	10
Annex B (informative) Method of calculation of thermal insulation	10
Annex C (informative) Method of calculation of sound reduction index	15
Annex D (normative) Fixed ventilation test	15
Annex E (informative) Roof ventilation diagrams	16
Figure 1 — Warning notice	9
Figure A.1 — Chassis holding down point detail	10
Figure E.1 — Diagrammatic representation of roof ventilation requirements	17
Table B.1 — Typical surface resistance values	11
Table B.2 — Recording of thermal insulation calculations	12
Table B.3 — Thermal conductivity values	13
Table B.4 — Air space thermal resistance	13
Table B.5 — Typical <i>U</i> -values for windows	14
List of references	18

Foreword

This British Standard has been prepared by Technical Committee B/511, Buildings, mobile and temporary. It supersedes BS 3632:1989 which is withdrawn.

This revision introduces technical changes to take account of present living requirements, following a full review of the standard. When this British Standard was first published in 1963, the title *Specification for permanent residential caravans* was adopted to reflect the design and use of this type of caravan and the term by which it was then commonly known. Since then, the permanent residential caravan has undergone considerable development in terms of size, services, equipment and material and the revision published in 1989 recognized changes made up to that time. When issued in 1981 this standard was titled *Specification for mobile homes*, “mobile home” being the term used in the United Kingdom shortly before and following the Mobile Homes Act of 1975 [1]. Since 1981 the term “park home” has been adopted by the caravan industry and is now in common use and this term was, therefore, introduced into the standard. The term “residential park home” has now been adopted in order to be more specific and avoid ambiguity.

This edition has regard to criteria appropriate to more conventional forms of housing and is aimed at ensuring the suitability of a residential park home as a permanent dwelling as far as is possible with this form of construction.

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Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Introduction

The main concern of the Technical Committee, which prepared BS 3632:1981, was the matter of the technical performance which could be reasonably required from a park home.

At that time it was decided that by definition the mass and size of a park home was small enough to allow it to be moved from place to place by road, either on its own wheels or by transporter subject to road traffic regulations. Whether or not the home was relocated periodically or whether it remained on one plot, the park home had to be considered a permanent dwelling.

It was therefore decided that due to the mobility factor certain requirements in the standard should differ from those associated with traditional buildings.

The particular needs of the occupants of a residential park home in the event of fire were considered and careful attention was paid to the provision of means of escape and advice on fire fighting appliances was given. It was also borne in mind that the model standards issued under the Caravan Sites and Control of Development Act of 1960 [2] recommend a minimum of 6 m between residential park homes on the park.

In preparing this revision it was felt that the standard needed upgrading to bring it in line with present living requirements and in some cases defining dimensions which were vague.

The main changes to the requirements are:

- a) increase in total floor area (see 4.3.2);
- b) raising of the minimum ceiling height(s) (see 4.3.5);
- c) upgrade of insulation values (see 4.9.3);
- d) definition of a minimum distance between external doors (see 4.4);
- e) improvement in means of escape from kitchen area (see 4.5.3);
- f) inclusion of precautions relating to upholstery and smoke alarms (see 6.5);
- g) inclusion of installation of services (see clause 7);
- h) provision for holding down points to resist overturning (see 4.9.2).

It was decided that mechanical ventilation should be fitted in line with current building practice and that an amount of ventilation be specified for the roof space.

WARNING. Breathing asbestos dust is dangerous to health and it is essential that precautions are taken during the manufacture and use of those products.

Particular note has been taken of the Asbestos Products (Safety) Regulations 1985 [3] and the Asbestos Products (Safety) (amendment) Regulations 1987 [4], made under the Consumer Safety Act 1978 [5]; also of the Asbestos (Prohibitions) 1988 [6] made under the Health and Safety at Work Act etc. 1974 [7], which prohibit the supply of products containing amosite or crocidolite ("brown" asbestos and "blue" asbestos respectively) and set out requirements for the labelling of all products containing asbestos.

All the above legislation implements European Directives.

1 Scope

This British Standard specifies requirements for the manufacture of an ex-works residential park home for use as a permanent dwelling. It also specifies conditions of tests to be carried out to ensure conformity of products.

2 References

2.1 Normative references

This standard incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on page 18. For dated references, only the edition cited applies; any subsequent amendments to or revisions of the cited publication apply to this British Standard only when incorporated in the reference by amendment or revision. For undated references, the latest edition of the cited publication applies, together with any amendments.

2.2 Informative references

This standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this standard the definitions given in BS 6760 apply where appropriate together with the following.

3.1

residential park home

caravan used for permanent residence as defined in the Caravan Sites and Control of Development Act 1960 [2] and the Caravan Sites Act 1968 [8]

4 Design

4.1 Occupancy

To determine the ventilation requirements the occupancy shall be designated as the number of berths provided, both standard and additional berths.

4.2 Accommodation

The accommodation shall provide living area, space for meals, kitchen, bedroom (or bedrooms), bathroom or shower room and sanitary accommodation. There shall be two doors, separated by a ventilated space, between the WC compartment and any part of the residential park home used for food preparation or consumption.

4.3 Room dimensions

4.3.1 All floor areas shall be ascertained from internal measurements taken at floor level, between external and/or partition walls.

4.3.2 The total floor area shall be not less than 23 m².

4.3.3 Double bedrooms shall be not less than 2 300 mm in one plan dimension and not less than 5.5 m² in area.

4.3.4 Single bedrooms shall be not less than 1 900 mm in one plan dimension and not less than 2.3 m² in area.

4.3.5 The ceiling height on a flat ceiling shall be not less than 2 135 mm excluding carpets. For a pitched ceiling, the ceiling shall have an average height of not less than 2 135 mm and not more than 3 048 mm excluding carpets. For single bedrooms, the height of the pitched ceiling shall not reduce below 2 135 mm within the minimum floor area as specified in **4.3.4**.

4.4 Doors and windows

There shall be two external access doors spaced well apart. (See **4.5.2**.)

If the two external doors are in the same room then they shall be a minimum of 2 500 mm apart when measured between the nearest inner faces of the frames.

All habitable rooms and the kitchen shall be provided with windows or glazed external doors or both, the total glazed area of which shall be not less than 10 % of the floor area. Windows to habitable rooms and the kitchen shall be openable to the extent of 5 % of that room's floor area.

For the purpose of calculation of glazed area and extent of window opening, the floor area excludes built-in furniture from floor to ceiling and habitable rooms exclude any hall, bathroom or WC.

4.5 Means of escape

4.5.1 General

Dining rooms, bedrooms and living rooms shall each be provided with a means of escape by a door or a window which shall give direct access to the open air. If a jamb of the only door opening into a kitchen is within 1 m of any cooking equipment, an alternative means of escape shall be provided from the kitchen.

No part of furniture or equipment shall obstruct the clear opening of an entrance door or a means of escape.

4.5.2 *Emergency doors*

Emergency doors shall have a clear opening of not less than 1 900 mm in height and 700 mm in width.

4.5.3 *Emergency windows*

The minimum clear opening of an emergency window shall be not less than 0.4 m² with a minimum horizontal or vertical dimension of 500 mm. Emergency windows shall be capable of being easily and quickly opened from the inside. Opening of an emergency window shall require not more than three operations in addition to those required to move curtains, blinds and flyscreens. An emergency window shall be capable of remaining open after the third operation. The simultaneous manual opening of two window catches shall be regarded as one operation.

No casement stay or casement fastener shall project into the minimum clear opening. No opening shall be more than 900 mm above floor level except in the case of kitchen windows used as a means of escape in which case the clear opening shall be no more than 1 000 mm above floor level.

Emergency windows shall not be pivoted horizontally on their lower edge. Where top-hung, they shall open not less than 70° and shall be capable of staying fully open until closed manually. Locking devices of top-hung windows shall be located at not more than a quarter of the height of the frame from its lower edge.

4.5.4 *Porches*

If an integral porch is fitted over an external door of a park home, any external door of the porch shall open outwards and give direct access to the open air. A porch door shall not impede nor be impeded by the full opening of the external door of the park home and no other door within the porch shall obstruct the means of escape.

4.6 *External walls*

The thickness of an external wall shall be a minimum of 50 mm and the wall shall conform to the thermal insulation requirement given in 4.8.3 and the sound insulation requirements given in 4.9.4.

4.7 *Internal walls*

All internal walls intended to separate two adjacent areas shall, if access is required between the two adjacent areas, be fitted with a vertically hinged door to fit the aperture as closely as is practicable and which shall be capable of rotating on its hinges a minimum of 85° from its fully closed position. The construction of internal walls shall consist of sheet material on each side of framing.

4.8 *Glazing*

Glazing in doors and windows shall be in accordance with BS 6262.

4.9 *Construction design criteria*

4.9.1 *Structure*

The structure shall be capable of transmitting the dead and imposed load to which it may be subject in normal service to the foundations without detriment to the structure.

NOTE It is recommended that residential park homes exceeding 11 m long should be fitted with a second axle, suitably positioned for manoeuvring purposes.

The external construction shall prevent penetration of weather and damp.

4.9.2 *Stability (resistance to overturning)*

A residential park home shall be provided with suitable holding down points, each capable of resisting 10 kN. Holding down points shall be located at 1 000 mm ± 200 mm from the end of the chassis at each of the four corners of the home. The manufacturer shall indicate the position of the holding down points on the chassis in the User's Handbook (see clause 10). A suitable chassis holding down point detail is shown in Annex A.

4.9.3 *Thermal insulation*

NOTE 1 The thermal transmittance U may be calculated by the method given in Annex B.

The external walls, floor and roof, excluding any door and window openings, shall be of such materials and be so constructed and finished that the U -value does not exceed:

0.6 W/(m²·K) for the wall and floor construction;

0.35 W/(m²·K) for the roof.

The calculated average overall U -value of external walls (including any door and window openings in them) shall not exceed $1.0 \text{ W}/(\text{m}^2 \cdot \text{K})$.

Means shall be provided to minimize water vapour condensing within the insulating material.

NOTE 2 Underfloor insulation should be protected from attack by birds, animals and insects.

NOTE 3 Guidance on dealing with interstitial condensation is given in BRE Digest 369 [9] and in BS 5250.

4.9.4 Sound insulation

The external walls shall have an average sound reduction index of not less than 35 dB over a frequency range of 125 Hz to 4 000 Hz excluding door, windows and ventilation apertures.

NOTE The sound reduction index may either be calculated in accordance with the method given in Annex C or as recommended in BS 8233.

4.10 Mechanical ventilation

4.10.1 General

Care shall be exercised in the siting of open or closed flue appliances adjacent to any mechanical extraction system in order to prevent reversal in the flue system. The operation of any flue system shall be in accordance with BS 5440-1 for gas fired appliances and BS 5410-1 for oil fired appliances, with all appliances and the extractor in operation.

Mechanical extractors shall be capable of being switched on and off manually.

4.10.2 Kitchen

The kitchen shall be provided either with a mechanical extractor capable of extracting a minimum of 60 l/s or with a cooker hood capable of extracting a minimum of 30 l/s, vented to the outside air.

Mechanical ventilation shall only be excluded from a kitchen if a heating appliance is installed in the kitchen and the installation instructions for the heating appliance preclude the fitting of a mechanical extractor.

4.10.3 Bathroom and WCs

Bathrooms and WCs shall be provided with a mechanical extractor capable of extracting a minimum of 15 l/s vented to the outside air.

4.11 Fixed ventilation

4.11.1 General

Fixed ventilation shall be provided to permit:

- a) the renewal of air for occupants;
- b) the supply of combustion for all appliances that are not room-sealed;
- c) the evacuation of the products of combustion of all appliances which are not room-sealed.

Fixed ventilation shall be provided at high level and low level in each separate compartment where a non-room-sealed appliance is installed to ensure that the carbon dioxide (CO_2) content of the air within a living compartment shall not rise by more than 1 % over the background level, when tested in accordance with the method given in Annex D.

Further requirements for installation are given in clause 7.

4.11.2 Free area of fixed ventilation

For the purposes of calculating the minimum requirement for fixed ventilation the “free area of fixed ventilation” shall be considered as the unobstructed cross-sectional area of ventilator, i.e. the total geometric area of only the apertures in the ventilator or grille where fitted.

4.11.3 Habitable areas containing appliances that are not room sealed

Minimum total free area of fixed ventilation for habitable areas containing appliances shall be calculated in accordance with the following equation:

$$V = 2\,200G + 440F + 650P + 1\,000R \text{ in mm}^2$$

where

V = minimum total area of fixed ventilation;

A = kW rating of all unflued gas appliances that are not room sealed;

F = kW input rating of all flued gas appliances that are not room sealed;