1982 No. 81

BUILDING REGULATIONS

Building (Amendment) Regulations (Northern Ireland) 1982

Made . . . . . *16th March 1982*

Coming into operation . . . *1st July 1982*

The Department of Finance, in exercise of the powers conferred on it by Articles 3 and 5(1) of the Building Regulations (Northern Ireland) Order 1979(**a**) and of every other power enabling it in that behalf, after consultation with the Building Regulations Advisory Committee and other such bodies as appear to the Department to be representative of the interests concerned, hereby makes the following regulations:—

Citation and commencement

1. These regulations may be cited as the Building (Amendment) Regulations (Northern Ireland) 1982 and shall come into operation on 1st July 1982.

Interpretation

2. In these regulations "the principal regulations" means the Building Regulations (Northern Ireland) 1977(**b**).

Transitional provisions

3.—(1) These regulations shall not apply to any work which was—

(*a*) completed before the date of the coming into operation of these regulations; or

(*b*) completed after that date in accordance with plans deposited with the district council before that date, with or without any departure or deviation from these plans.

(2) For the purpose of paragraph (1) "work" means the erection of a building, the alteration or extension of a building, the execution of works, the installation of a fitting or the making of a material change of use.

Amendment of principal regulations

4.—(1) In paragraph (1) of regulation A2 (Interpretation) after the definition of "under former control" there shall be inserted the following definition:—

""wholly exempted building" has the meaning assigned to it by regulation A5(3)(*a*).".

(2) In regulation A5 (Exemptions) there shall be substituted for sub-paragraph (*b*) of paragraph (2) the following sub-paragraph:—

"(*b*) In the application of these regulations to—

(i) the erection of any partially exempted building; or

(ii) the execution of any works or installation of any fittings in connection with such building; or

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(**a**) S.I. 1979/1709 (N.I. 16) — Articles 3 and 5(1) were brought into operation on the 1st November 1980 by S.R. 1980 No. 331

(**b**) S.R. 1977 No. 149 as amended by S.R. 1979 No. 79 and S.R. 1980 nos. 86 and 332

(iii) the alteration or extension of such building in such a way that it will remain a partially exempted building, as so altered or extended,

it shall not be necessary to comply with any provisions of these regulations except—

(*a*) the provisions specified in columns (3), (4) and (5) of Part A of Schedule 1 in relation to the Class to which such building belongs (which in the case of an alteration or extension means the Class to which the building as altered or extended belongs); and

(*b*) regulations A10 and A11 if the proposal includes work to which any of the provisions specified in columns (4) and (5) of Part A of Schedule 1 apply:''

(3) In paragraph (1) of regulation A9 (Application to material change of use)—

(*a*) in case B under the entry relating to Part E for the reference ''E9(7)'' in item (*a*) there shall be substituted the reference ''E9(6)''; and

(*b*) in Case C under the entry relating to Part E for the reference ''E9(7)'' in items (*b*) and (*c*) there shall be substituted the reference ''E9(6)''.

(4) There shall be substituted for Part E (Structural Fire Precautions), the Part set out in the Schedule.

(5) In Part A of Schedule I (Classes of Partially Exempted Buildings)—

(*a*) in column (4) opposite class 1 for the reference ''E2'' there shall be substituted the reference ''E2(2)'';

(*b*) in column (4) opposite class 5—

(i) the asterisks beside ''Regulation K3(3)'' and ''Part L'' shall be omitted; and

(ii) for item (ii) of the footnote there shall be substituted ''(ii) not less than 2 m from (*a*) any boundary; and (*b*) any building which is within the same boundaries and is either of purpose group I (other than a building described in regulation E2(2)) II or III'';

(*c*) in item (ii) in column (2) opposite class 6 for the reference ''plants'' there shall be substituted the reference ''plant''; and

(*d*) in column (4) opposite class 6 following the reference ''Parts C and D'' there shall be inserted the following proviso:—

''(unless the building has a capacity not exceeding 100m^3)''.

(6) In Schedule 2 (Giving of Notices and Deposit of Plans)—

(*a*) in Rule C—

(i) the words ''by Part A of Schedule 1'' shall be omitted; and

(ii) in item 2 there shall be inserted after the words ''exemptions in'' the words ''Part A of''; and

(*b*) in item 5 of Rule E there shall be inserted after the word ''building'' the words ''or adjoining building''.

(7) In Schedule 6 (Notional Periods of Fire Resistance)—

(*a*) against the heading for the reference ''Regulation E1(5)'' there shall be substituted the reference ''Regulation E1(5), proviso (*b*)''; and

(*b*) in Part VII in each of the three footnotes regarding the term ''modified ½ hour'' for the reference ''item 7 in the table'' there shall be substituted the reference ''item 10 in Table 1''.

(8) In Schedule 7 (Calculation of Permitted Limits of Unprotected Areas)—

(*a*) against the heading for the reference "Regulation E7" there shall be substituted the reference "Regulation E7(2)";

(*b*) in rule 2 of Part 1 for the reference "E1" there shall be substituted the reference "E1(1)"; and

(*c*) in rule 2(*b*)(iv) of Part 1 for the reference "28m" there shall be substituted the reference "27m".

(9) In Schedule 8 (Notional Designations of Roof Coverings)—

(*a*) against the heading for the reference "Regulation E1(4)" there shall be substituted the reference "Regulation E1(6)"; and

(*b*) in item (*a*) of Part IV(A) for the words "stone chippings" there shall be substituted the words "mineral aggregate".

(10) In Schedule 11 (Publications to which Specific Reference is made in the Building Regulations (Northern Ireland) 1977)—

(*a*) in Table A—

(i) in relation to the publication "BS476: Part 1: 1953" in column (4) for the reference "E1(5), proviso (i)" there shall be substituted the reference "E1(5), proviso (*a*)" and for the reference "Table to E1" there shall be substituted the reference "Table to E1, sub-heading";

(ii) in relation to the publication "BS476: Part 3: 1958" in column (4) for the reference "El(4)" there shall be substituted the reference "E1(6)";

(iii) in relation to the publication "BS476: Part 6: 1958" in column (4) there shall be added the references "E7(5)(*c*)(ii)" and "E14(6)(*c*)(vi)";

(iv) in relation to the publication "BS476: Part 8: 1972" in column (4) for the reference "Table to E1" there shall be substituted the reference "Table 1 to E1, sub-heading" and there shall be added the reference "Table 1 to E1, footnotes";

(v) in relation to the publication "BS2782: 1970" for the three references in column (4) there shall be substituted the references "E1(7)" and "Table 2 to E1";

(vi) the entry relating to the publication "BS3590: 1970" shall be omitted; and

(vii) in columns (1) to (4) there shall be added the entry specified in columns (1) to (4) below—

Amendment Slip

Publication (1)	Serial Number (2)	Reference Number (3)	Context (4)
BS5306: Part 2: 1979	1	AMD 3586	E4(1), Proviso Table to E5, Part 1, footnote y

(*b*) in Table B, the entry relating to "CP 402.201: 1952" shall be omitted.

Sealed with the Official Seal of the Department of Finance for Northern Ireland on 16th March 1982.

(L.S.) *Harold Carson*
Assistant Secretary

SCHEDULE Regulation 4(4)

Part to be substituted for Part E (Structural Fire Precautions) of the principal regulations

PART E

STRUCTURAL FIRE PRECAUTIONS

Interpretation of Part E

E1.—(1) In this Part and in the Schedules thereto—

"basement storey" means a storey which is below the ground storey; or, if there is no ground storey, means a storey the floor of which is situated at such a level or levels that some point on its perimeter is more than 1.2m below the level of the finished surface of the ground adjoining the building in the vicinity of that point;

"cavity" and "cavity barrier" have the meanings assigned to them by regulation E14(1);

"compartment" means any part of a building which is separated from all other parts by one or more compartment walls or compartment floors or by both such walls and floors; and, if any part of the top storey of a building is within a compartment, that compartment shall also include any roof space above such part of the top storey;

"compartment wall" and "compartment floor" mean respectively a wall and a floor which complies with regulation E9 and which is provided as such for the purposes of regulation E4 or to divide a building into compartments for any purpose in connection with regulation E5, E6 or E7;

"door" includes any shutter, cover or other form of protection to an opening in any wall or floor of a building or in the structure surrounding a protected shaft, whether the door is constructed of one or more leaves;

"element of structure" means—

(*a*) any member forming part of the structural frame of a building or any other beam or column (not being a member forming part of a roof structure only);

(*b*) a floor, including a compartment floor, other than the lowest floor of a building;

(*c*) an external wall;

(*d*) a separating wall;

(*e*) a compartment wall;

(*f*) structure enclosing a protected shaft;

(*g*) a loadbearing wall or loadbearing part of a wall; and

(*h*) a gallery;

"externally non-combustible" means externally consisting of or faced with non-combustible material;

"fire stop" has the meaning assigned to it by regulation E14(1);

"glazing" means light-transmitting material whether glass or not; and "glazed" shall be construed accordingly;

"ground storey" means a storey the floor of which is situated at such a level or levels that any given point on its perimeter is at or about, or not more than 1.2 m below, the level of the finished surface of the ground adjoining the building in the vicinity of that point; or, if there are two or more such storeys, means the higher or highest of these;

"height of a building" has the meaning assigned to it by regulation E3;

"open carport" means a carport which has not more than one storey and is open on two or more of its sides; and, for the purpose of this definition, a side which includes or consists of a door shall not for that reason be regarded as an open side;

"permitted limit of unprotected areas" means the maximum aggregate area of unprotected areas in any side or external wall of a building or compartment, calculated as prescribed in Part 1 of Schedule 7;

"protected shaft" means a stairway, lift, escalator, chute, duct or other shaft which enables persons, things or air to pass between different compartments and complies with the requirements of regulation E10;

"relevant boundary", in relation to a side or external wall of a building or compartment, means that part of the boundary of the premises (as defined in regulation A2(1)) or of the notional boundary (as prescribed in regulation E7(1)(*c*)) which is adjacent to that side or wall and either coincides with, is parallel to or is at an angle of not more than 80° with that side or wall;

"separating wall" means a wall or a part of a wall which is common to adjoining buildings; and

"unprotected area", in relation to an external wall or side of a building, means—

(*a*) a window, door or other opening;

(*b*) any part of the external wall which has fire resistance less than that specified by this Part for that wall; and

(*c*) any part of the external wall which has combustible material more than 1 mm thick attached or applied to its external face, whether for cladding or any other purpose.

(2) Any reference in this Part to a building shall, in any case where two or more houses adjoin, be construed as a reference to one of those houses.

(3) If any part of a building other than a single storey building—

(*a*) consists of a ground storey only;

(*b*) has a roof to which there is only such access as may be necessary for the purposes of maintenance or repair; and

(*c*) is completely separated from all other parts of the building by a compartment wall or compartment walls in the same continuous vertical plane,

that part may be treated, for the purposes of this Part, as a part of a single storey building.

(4) In relation to a building, or part of a building, of purpose group VII—

(*a*) the floor of a gallery (other than a loading gallery, fly gallery, stage grid, lighting bridge, or any gallery used for similar purposes or provided for the purpose of maintenance or repair) shall be regarded as the floor of a storey; and

(*b*) wherever in this Part a building is described by reference to a number of storeys, that number shall be construed as including any ground storey or upper storey formed by such a floor.

(5) Any requirement in this Part that an element of structure, door or other part of a building shall have fire resistance of a specified period shall be construed as meaning that it shall be so constructed that a specimen constructed to the same specification, if exposed to test by fire in accordance with BS476: Part 8: 1972, would (subject to any relevant provision in Table 1 to this regulation) satisfy the requirements of that test as to stability, integrity and insulation for not less than the specified period:

Provided that an element of structure, door or other part of a building shall be deemed to have the requisite fire resistance if–

(a) it is constructed to the same specification as that of a specimen which prior to 1st June 1975 was either exposed to test by fire in accordance with BS476: Part I: 1953 and (subject to any relevant provision in Table I to this regulation) satisfied the requirements of that test as to collapse, passage of flame and insulation for not less than the specified period or was assessed by an appropriate authority as capable of satisfying those requirements; or

(b) in the case of a wall, beam, column, stanchion or floor to which Schedule 6 relates, it is constructed in accordance with one of the specifications set out in that schedule and the notional period of fire resistance given in that schedule as being appropriate to that type of construction and other relevant factors is not less than the specified period.

(6) Any reference in this Part to a roof or part of a roof of a specified designation shall be construed as a requirement that the roof or part shall be so constructed that a specimen constructed to the same specification, if exposed to test by fire in accordance with BS476: Part

3: 1958, would comply with the relevant test criteria specified in relation to that designation:

Provided that any roof or part of a roof shall be deemed to be of the specified designation if it conforms with one of the specifications set out against that designation in Schedule 8.

(7) Any reference in this Part to a plastics material of a designated type shall be construed as a reference to a material which falls within the description relevant to that type given in column (2) of Table 2 to this regulation and of which the appropriate number of specimens, if tested in accordance with BS2782: 1970 by the method of test prescribed in column (3) of that Table, would comply with the test criteria prescribed in column (4) of that Table.

TABLE 1 TO REGULATION E1

(Provisions as to method of test and minimum period of fire resistance)

Part of building	Method of test	Minimum period as to—		
		BS476: Part 8: 1972		
		Stability	Integrity	Insulation
		BS476: Part 1: 1953		
		Collapse	*Passage of flame*	*Insulation*
(1)	(2)	(3)	(4)	(5)
1. External wall situated 1 m or more from relevant boundary (excluding any part of such a wall which is described in item 2)	exposure of inside of wall to test by fire	*	*	15 min
2. Any part of an external wall (being a wall situated 1 m or more from relevant boundary) which is required to comply with regulation E7(5)(*b*)	exposure of each side of wall separately to test by fire—			
	(*a*) if inside of wall exposed to test by fire	*	*	15 min
	(*b*) if outside of wall exposed to test by fire	†	†	†
3. External wall situated less than 1 m from any point on relevant boundary 4. Separating wall 5. Compartment wall 6. Structure (other than an external wall) enclosing protected shaft 7. Structure referred to in regulations E13(2)(*a*) and E 13(3)(*b*)	exposure of each side of structure separately to test by fire	*	*	*

TABLE 1 TO REGULATION E1 — *continued*

Part of building	Method of test	Minimum period as to—		
		BS476: Part 8: 1972		
		Stability	Integrity	Insulation
		BS476: Part 1: 1953		
		Collapse	*Passage of flame*	*Insulation*
(1)	(2)	(3)	(4)	(5)
8. Wall referred to in regulation E18(6)(*b*)	exposure of garage side of wall to test by fire	*	*	*
9. Compartment floor	exposure of underside of floor to test by fire	*	*	*
10. Floor of upper storey in building of purpose group I which has two storeys	exposure of underside of floor to test by fire	30 min‡	15 min‡	15 min‡
11. Casing referred to in regulation E12(3)(*c*)	exposure of exterior to test by fire	30 min	30 min	30 min§
12. Ceiling referred to in regulation E14(6)(*b*)	exposure of underside to test by fire¶	30 min	30 min	30 min
13. Cavity barrier referred to in regulation E14(8)(*a*)	exposure of each side of barrier separately to test by fire	30 min	30 min	15 min
13A. Cavity barrier referred to in regulation E14(8)(*b*)	exposure of each side of barrier separately to test by fire	30 min	30 min	no requirement
14. Door other than a door described in item 15 or 16	exposure to test by fire when fitted in its frame	*	*	no requirement
15. Door referred to in both regulation E11(5) and regulation E9(1)(*a*)(i), E13(2)(*c*), E13(3)(*c*), E14(9)(*c*)(vi) or E18(6)(*c*)(ii)	exposure to test by fire when fitted in its frame	30 min	20 min	no requirement
16. Door referred to in both regulation E11(6) and regulation E10(7)(*a*) or E10(7)(*b*)	exposure to test by fire when fitted in any rebated frame	30 min	30 min	no requirement

* denotes 'period of fire resistance specified'.

† denotes 'period of fire resistance specified by regulation E5 or one hour whichever is the less'.

‡ These requirements are referred to in Part VII of Schedule 6 as 'modified ½ hour'.

§ No requirement if the distance between the casing and any pipe within the enclosure other than a pipe penetrating the casing exceeds 50 mm.

¶ The ceiling shall be tested in accordance with BS476: Part 8: 1972 as for a floor but with the following modifications—

(*a*) Construction. The specimen of the ceiling and its supporting structure to be tested shall be representative of that to be used in practice and shall include any insulating material to be laid directly on the ceiling.

(*b*) Loading and restraint. No loading shall be applied and any restraint shall comply with clause 1.3.2.

(*c*) Determination of fire resistance. The fire resistance of the ceiling shall be judged on the compliance of the specimen with the three criteria specified in clause 1.5 and its fire resistance shall be determined in accordance with the provisions of clause 1.6.

TABLE 2 TO REGULATION E1

(Designation of plastics materials)

Type	Description of material	Method of test in accordance with BS2782: 1970	Criteria (to be satisfied by each specimen used for test purposes unless otherwise prescribed)
(1)	(2)	(3)	(4)
1	Any plastics material	102C	The softening point of the material (expressed as the arithmetic mean of the softening points of the two specimens used) does not exceed 120°C
2	Any plastics material which satisfies both tests	102C	The softening point of the material (expressed as the arithmetic mean of the softening points of the two specimens used) does not exceed 120°C
		508A	When tested in a thickness of 3 mm, the rate of burning does not exceed 50mm/min
3	Polyvinyl chloride	508A	(i) The flame does not reach the first mark; and (ii) the duration of flame or after-glow after the removal of the burner does not exceed 5 seconds
4	Polyvinyl chloride	508C	The distance of travel of the flame does not exceed 75 mm
5	Polyvinyl chloride	508D	(i) The specimen flames or glows for not more than 5 seconds; (ii) any material dropped from the specimen does not continue to burn after reaching the base of the test apparatus;

TABLE 2 TO REGULATION E1 — *continued*

Type	Description of material	Method of test in accordance with BS2782: 1970	Criteria (to be satisfied by each specimen used for test purposes unless otherwise prescribed)
(1)	(2)	(3)	(4)
			(iii) charring or scorching does not extend over an area exceeding 20% of the area of the underside of the specimen; and (iv) the length of the charred or scorched edge of the underside of the specimen does not exceed 50 mm

Designation of purpose groups

E2.—(1) For the purposes of this Part, every building or compartment shall be regarded according to its use or intended use as falling within one of the purpose groups set out in the Table to this regulation and, where a building is divided into compartments used or intended to be used for different purposes, the purpose group of each compartment shall be determined separately:

Provided that where the whole or part of a building or compartment (as the case may be) is used or intended to be used for more than one purpose, only the main purpose of use of that building or compartment shall be taken into account in determining into which purpose group it falls.

(2) Notwithstanding paragraph (1), a detached building which consists only of a garage or an open carport or of both shall be regarded as falling within purpose group I if the garage, the carport or each of them (as the case may be) has a floor area not exceeding 40 m^2.

TABLE TO REGULATION E2

(Designation of purpose groups)

Purpose group	Descriptive title	Purposes for which building or compartment is intended to be used
(1)	(2)	(3)
I	Small residential	Private dwelling-house (not including a flat or maisonette)
II	Institutional	Hospital, home, school or other similar establishment used as living accommodation for, or for treatment, care or maintenance of, persons suffering from disabilities due to illness or old age or other physical or mental disability or under the age of five years, where such persons sleep in the premises
III	Other residential	Accommodation for residential purposes other than any premises comprised in groups I and II
IV	Office	Office, or premises used for office purposes, meaning thereby the purposes of administration, clerical work (including writing, book-keeping, sorting papers, filing, typing, duplicating, machine-calculating, drawing and the editorial preparation of matter for publication), handling money and telephone and telegraph operating, or as premises occupied with an office for the purposes of the activities there carried on

TABLE TO REGULATION E2 –*continued*

Purpose group (1)	Descriptive title (2)	Purposes for which building or compartment is intended to be used (3)
V	Shop	Shop, or shop premises, meaning thereby premises not being a shop but used for the carrying on there of retail trade or business (including the sale to members of the public of food or drink for immediate consumption, retail sales by auction, the business of lending books or periodicals for the purpose of gain, and the business of a barber or hairdresser), and premises to which members of the public are invited to resort for the purpose of delivering their goods for repair or other treatment or of themselves carrying out repairs to, or other treatment of, goods
VI	Factory	Factory within the meaning ascribed to that word by section 175 of the Factories Act (N.I.) 1965(a)
VII	Other place of assembly	Place, whether public or private, used for the attendance of persons for or in connection with their social, recreational, educational, business or other activities, and not comprised within groups I to VI
VIII	Storage and general	Place for storage, deposit or parking of goods and materials (including vehicles), and any other premises not comprised in groups I to VII

Rules for measurement

E3. In this Part—

(*a*) the height of a building or (where relevant) of part of a building as described in regulation E5(1)(*b*) shall be measured from the mean level of the ground adjoining the outside of the external walls of the building or part (as the case may be) to the level of half the vertical height of the roof of the building or part, or to the top of the walls or of the parapet (if any), whichever is the higher;

(*b*) (i) the area of any storey of a building, part of a building or compartment shall be taken to be the total area of that storey bounded by the inner finished surfaces of the enclosing walls or, on any side where there is no enclosing wall, by the outermost edge of the floor on that side;

(ii) the area of any room or garage shall be taken to be the total area of its floor bounded by the inner finished surfaces of the walls forming the room or garage; and

(iii) the area of any part of a roof shall be taken to be the actual visible area of such part measured on a plane parallel to the pitch of the roof; and

(*c*) the cubic capacity of a building, part of a building or compartment shall be ascertained by measuring the volume of space contained within the following surfaces and shall include the space occupied by any structure, shafts or ducts within the space to be so measured—

(i) the inner finished surfaces of the enclosing walls or, on any side where there is no enclosing wall, a plane extending vertically above the outermost edge of the floor on that side;

(ii) the upper surface of its lowest floor; and

(iii) in the case of a building, the under surface of the roof; or

(iv) in the case of a part of a building or a compartment which extends to the roof, the under surface of the roof; or

(v) in the case of any other part of a building or compartment, the under surface of the ceiling of the highest storey within that part or compartment.

(a) 1965 c.20 (N.I.)

Provision of compartment walls and compartment floors

E4.—(1) Any building of a purpose group specified in column (1) of the Table to this regulation which has—

(*a*) any storey the floor area of which exceeds that specified as relevant to a building of that purpose group and height in column (3) of the Table; or

(*b*) a cubic capacity which exceeds that specified as so relevant in column (4) of the Table,

shall be so divided into compartments by means of compartment walls or compartment floors or both that—

(i) no such compartment has any storey the floor area of which exceeds the area specified as relevant to the building in column (3) of the Table; and

(ii) no such compartment has a cubic capacity which exceeds that specified as so relevant in column (4) of the Table:

Provided that, if any building of purpose group V is fitted throughout with an automatic sprinkler system which complies with the relevant recommendations of BS5306: Part 2: 1979, this paragraph shall have effect in relation to that building as if the limits of dimensions specified in columns (3) and (4) of the Table were doubled.

(2) In any building which exceeds 28 m in height, any floor which separates one storey from another storey, other than a floor which is—

(*a*) within a maisonette; or

(*b*) above the ground storey but at a height not exceeding 9 m above the adjoining ground,

shall be constructed as a compartment floor.

(3) The following walls and floors shall be constructed as compartment walls or compartment floors—

(*a*) any floor in a building of purpose group II;

(*b*) any wall or floor separating a flat or maisonette from any other part of the same building;

(*c*) any wall or floor separating part of a building from any other part of the same building which is used or intended to be used mainly for a purpose falling within a different purpose group in the Table to regulation E2; and

(*d*) any floor immediately over a basement storey if such storey—

(i) forms part of a building of purpose group I which has three or more storeys or a building or compartment of purpose group III or V; and

(ii) has an area exceeding 100 m^2.

TABLE TO REGULATION E4

(Dimensions of buildings and compartments)

Purpose group (1)	Height of building (in m) (2)	Limits of dimensions: Floor area of storey in building or compartment (in m^2) (3)	Limits of dimensions: Cubic capacity of building or compartment (in m^3) (4)
Part 1: Buildings other than single storey buildings			
II (Institutional)	No limit	2000	No limit
III (Other residential)	Not exceeding 28	3000	8500
	Exceeding 28	2000	5500

TABLE TO REGULATION E4 — *continued*

Purpose group (1)	Height of building (in m) (2)	Limits of dimensions: Floor area of storey in building or compartment (in m^2) (3)	Limits of dimensions: Cubic capacity of building or compartment (in m^3) (4)
V (Shop)	No limit	2000	7000
VI (Factory)	Not exceeding 28 Exceeding 28	No limit 2000	28000 5500
VII (Assembly)	No limit	No limit	7000
VIII (Storage and general)	Not exceeding 28 Exceeding 28	No limit 1000	21000 No limit
Part 2: Single storey buildings			
II (Institutional)	No limit	3000	No limit
III (Other residential)	No limit	3000	No limit

Fire resistance of elements of structure

E5.—(1) In this regulation and in the Table to this regulation—

(*a*) (subject to any express provision to the contrary) any reference to a building of which an element of structure forms part means the building or (if a building is divided into compartments) any compartment of the building of which the element forms part; and

(*b*) any reference to height means the height of a building, not of any compartment in the building, but if any part of the building is completely separated throughout its height both above and below ground from all other parts by a compartment wall or compartment walls in the same continuous vertical plane, any reference to height in relation to that part means the height solely of that part.

(2) Subject to the provisions of this regulation and of regulation E6, every element of structure shall have fire resistance of not less than the relevant period set out in the Table to this regulation:

Provided that:

(*a*) any separating wall shall not have fire resistance of less than one hour;

(*b*) any compartment wall or compartment floor which separates a part of a building falling within purpose group II or III from any other part of the building falling within a purpose group other than purpose group II or III shall not have fire resistance of less than one hour;

(*c*) any element of structure which forms part of more than one building or compartment shall be so constructed as to comply with the greater or greatest of the relevant requirements specified in the Table; and

(*d*) any element of structure shall not have fire resistance of less than the minimum period required by these regulations for any element which it carries.

(3) Any compartment wall separating a flat or maisonette from any other part of the same building shall not be required to have fire resistance exceeding one hour unless—

(*a*) the wall is a loadbearing wall or a wall forming part of a protected shaft; or

(*b*) the part of the building from which the wall separates the flat or maisonette is of a different purpose group and the minimum period of fire resistance required by the provisions of this regulation for any element of structure in that part is one and a half hours or more.

(4) Nothing in paragraph (2) shall apply to—

(*a*) any part of an external wall which is non-loadbearing and may, in accordance with regulation E7, be an unprotected area; or

(*b*) in the case of a single storey building or a building consisting of a ground storey and one or more basement storeys, any element of structure which forms part of the ground storey and consists of—

(i) part of an external wall which does not support a gallery and which may, in accordance with regulation E7, be an unprotected area; or

(ii) a structural frame or a beam or column:
Provided that any beam or column (whether or not it forms part of a structural frame) which is within or forms part of a wall, and any column which gives support to a wall or gallery, shall have fire resistance of not less than the minimum period, if any, required by these regulations for that wall or that gallery; or

(iii) an internal loadbearing wall or a loadbearing part of a wall unless that wall or part is, or forms part of, a compartment wall or a separating wall, or forms part of the structure enclosing a protected shaft or supports a gallery.

TABLE TO REGULATION E5

(Minimum periods of fire resistance)

In this Table—

"cubic capacity" means the cubic capacity of the building or, if the building is divided into compartments, the compartment of which the element of structure forms part;

"floor area" means the floor area of each storey in the building or, if the building is divided into compartments, of each storey in the compartment of which the element of structure forms part; and

"part", in column (1), means a part which is separated as described in regulation E5(1)(*b*).

Part 1: Buildings other than single storey buildings

Purpose group	Maximum dimensions			Minimum period of fire resistance (in hours) for elements of structure* forming part of—		
	Height (in m)	Floor area (in m^2)	Cubic capacity (in m^3)	ground storey or upper storey	basement storey	
(1)	(2)	(3)	(4)	(5)	(6)	
I (Small residential)						
House having not more than three storeys	No limit	No limit	No limit	½	1†	x
House having four storeys	No limit	250	No limit	1‡	1	
House having any number of storeys	No limit	No limit	No limit	1	1½	
II (Institutional)	28	2000	No limit	1	1½	
	over 28	2000	No limit	1½	2	

TABLE TO REGULATION E5 — *continued*

Part 1 – continued

Purpose group	Maximum dimensions			Minimum period of fire resistance (in hours) for elements of structure* forming part of—		
	Height (in m)	Floor area (in m^2)	Cubic capacity (in m^3)	ground storey or upper storey	basement storey	
(1)	(2)	(3)	(4)	(5)	(6)	
III (Other residential)						
Building or part having not more than two storeys	No limit	500	No limit	½	1	x
Building or part having three storeys	No limit	250	No limit	1‡	1	
Building having any number of storeys	28	3000	8500	1	1½	
Building having any number of storeys	No limit	2000	5500	1½	2	
IV (Office)	7.5	250	No limit	½	1†	x
	7.5	500	No limit	½	1	
	15	No limit	3500	1‡	1	
	28	5000	14000	1	1½	
	No limit	No limit	No limit	1½	2	
V (Shop)	7.5	150	No limit	½	1†	x
	7.5	500	No limit	½	1	
	15	No limit	3500	1‡	1	
	28	1000	7000	1	2	
	No limit	2000	7000	2	4	y
VI (Factory)	7.5	250	No limit	½	1†	x
	7.5	No limit	1700	½	1	
	15	No limit	4250	1‡	1	
	28	No limit	8500	1	2	
	28	No limit	28000	2	4	
	over 28	2000	5500	2	4	
VII (Assembly)	7.5	250	No limit	½	1†	x
	7.5	500	No limit	½	1	
	15	No limit	3500	1‡	1	
	28	1000	7000	1	1½	
	No limit	No limit	7000	1½	2	
VIII (Storage and general)	7.5	150	No limit	½	1†	x
	7.5	300	No limit	½	1	
	15	No limit	1700	1‡	1	
	15	No limit	3500	1	2	
	28	No limit	7000	2	4	
	28	No limit	21000	4	4	
	over 28	1000	No limit	4	4	

Notes to Part 1

For the purpose of regulation E5(2), the period of fire resistance to be taken as being relevant to an element of structure is the period included in column (5) or (6), whichever is appropriate, in the line of entries which specifies dimensions with all of which there is conformity or, if there are two or more such lines, in the topmost of those lines.

* A floor which is immediately over a basement storey shall be deemed to be an element of structure forming part of a basement storey.

† The period is half an hour for elements forming part of a basement storey which has an area not exceeding 50 m^2.

‡ This period is reduced to half an hour in respect of a floor which is not a compartment floor, except as to the beams which support the floor or any part of the floor which contributes to the structural support of the building as a whole.

x The line of entries thus marked is applicable only to buildings, not to compartments, except in relation to purpose group III; see also regulations E7(3) proviso (i) and E8(7) proviso (*a*).

y If the building is fitted throughout with an automatic sprinkler system which complies with the relevant recommendations of BS5306: Part 2: 1979, any maximum limits specified in columns (3) and (4) shall be doubled.

TABLE TO REGULATION E5 — *continued*

(Minimum periods of fire resistance)

Part 2: Single storey buildings

Purpose group (1)	Maximum floor area (in m^2) (2)	Minimum period of fire resistance (in hours) for elements of structure (3)	
I (Small residential)	No limit	½	z
II (Institutional)	3000	½	z
III (Other residential)	3000	½	z
IV (Office)	3000 No limit	½ 1	z
V (Shop)	2000 3000 No limit	½ 1 2	z
VI (Factory)	2000 3000 No limit	½ 1 2	z
VII (Assembly)	3000 No limit	½ 1	z
VIII (Storage and general)	500 1000 3000 No limit	½ 1 2 4	z

Notes to Part 2

For the purpose of regulation E5(2), the period of fire resistance to be taken as being relevant to an element of structure is the period included in column (3) in the line of entries which specifies the floor area with which there is conformity or, if there are two or more such lines, in the topmost of those lines.

z See regulations E7(3) proviso (i) and E8(7) proviso (*b*).

Fire resistance of floors in conjunction with suspended ceilings

E6.—(1) In the Table to this regulation—

(*a*) "height" has the meaning assigned to it by regulation E5(1)(*b*); and

(*b*) references to Class 0 and Class 1 shall be construed in accordance with sub-paragraphs (*e*) and (*f*) of regulation E15(1).

(2) In the application of regulation E5 to floors, no account shall be taken of any fire resistance attributable to any suspended ceiling other than a suspended ceiling constructed as described in the Table to this regulation.

TABLE TO REGULATION E6

(Suspended ceilings)

Height (in m) (1)	Type of floor (2)	Required fire resistance of floor (in hours) (3)	Description of suspended ceiling (4)
Less than 15	Non-compartment	1 or less	Surface of ceiling exposed within the cavity not lower than Class 1
	Compartment	Less than 1	
	Compartment	1	Surface of ceiling exposed within the cavity not lower than Class O; supports and fixings for the ceiling non-combustible
15 or more	Any	1 or less	Surface of ceiling exposed within the cavity not lower than Class O and jointless; supports and fixing for the ceiling non-combustible
No limit	Any	More than 1	Ceiling of non-combustible construction and jointless; supports and fixings for the ceiling non-combustible

External walls

E7.—(1) For the purposes of this regulation—

(*a*) any reference to Schedule 7 shall be construed as referring to the provisions of Part I of that schedule together with (at the option of the person intending to erect the building) the provisions of Part II, Part III or (if applicable) Part IV;

(*b*) any part of a roof shall be deemed to be part of an external wall or side of a building if it is pitched at an angle of 70° or more to the horizontal and adjoins a space within the building to which persons have access not limited to the purposes of maintenance or repair; and

(*c*) if a building is to be erected on land which will be occupied in common with another building (whether it be the only other building or any one of a number of other buildings) and either the building to be so erected or that other building is a building of any purpose group (except a building described in regulation E2(2) which complies with regulation E18 or E19)—

(i) in the application of the provisions of this regulation to any side or external wall of the building to be so erected which faces a side or external wall of that other building, a notional boundary shall be assumed to pass between those buildings;

(ii) such notional boundary shall be so situated as to enable the adjacent sides and external walls of both buildings to comply with the requirements of this regulation; and

(iii) if that other building is an existing building, it shall be treated as if it were a new building of the same purpose group and having the same unprotected areas and fire resistance as the existing building.

(2) Any side of a building except as provided by regulation E18 (Small garages) or E19 (Small open carports) shall comply with any relevant requirements relating to permitted limits of unprotected areas specified in Schedule 7.

(3) Any external wall which is situated within a distance of 1 m from any point on the relevant boundary and any external wall of a building which exceeds 15 m in height shall—

(*a*) be constructed wholly of non-combustible materials apart from any external cladding which complies with paragraph (4) or any internal lining which complies with regulation E15; and

(*b*) be so constructed that any fire resistance required by these regulations is attained by the non-combustible part alone:

Provided that the requirements of this paragraph shall not apply to—

(i) an external wall of a building which is within the limits of size indicated by the letter 'x' in Part 1 of the Table to regulation E5 or of a building which is not divided into compartments and is within the limits of size indicated by the letter 'z' in Part 2 of that table if, in either case, that building does not exceed 15 m in height;

(ii) an external wall of a building, or part of a building, of purpose group III which consists of flats or maisonettes if that building has not more than three storeys or that part is separated as described in regulation E5(1)(*b*) and has not more than three storeys; or

(iii) an external wall of a part of a building if that wall is situated 1 m or more from the relevant boundary and that part is separated as described in regulation E5(1)(*b*) and does not exceed 15 m in height.

(4) Any external cladding which is situated within a distance of 1 m from any point on the relevant boundary and any external cladding on a building which exceeds 15 m in height shall have a surface complying with the requirements for Class O specified in regulation E15(1)(*e*):

Provided that, if an external wall of such a building is 1 m or more from the relevant boundary, any part of such cladding below a height of 15 m from the ground may (subject to paragraph 5) consist of timber of not less than 9 mm finished thickness or of a material having a surface which, when tested in accordance with BS476: Part 6: 1968, has an index of performance (I) not exceeding 20.

(5) Any part of an external wall of a building of purpose group VII having more than one storey shall comply with the following provisions if it is situated not more than 7.5m above the finished surface of any adjoining ground or of any adjoining roof or other part of the building to which persons have access—

(*a*) in any such part of an external wall there shall be no unprotected area other than—

(i) a door; or

(ii) an opening which (whether glazed or not) would permit danger from external fire to be appreciated from the interior of the building;

(*b*) any such part (in addition to having not less fire resistance than that prescribed by regulation E5) shall, if situated 1m or more from the relevant boundary, be so constructed that, if the outside were to be exposed to fire, it would resist the action of fire for not less than the period prescribed by regulation E5 or one hour whichever is the less; and

(*c*) the external surface of any such part of an external wall, including any cladding and any glazed opening (other than a door) but not the frame of the latter—

(i) if situated within a distance of 1m from any point on the relevant boundary, shall be of Class O as defined in regulation E15(1)(e); or

(ii) if situated 1m or more from the relevant boumdary, shall (if tested in accordance with BS476: Part 6: 1968) have an index of performance (I) not exceeding 12 and a sub-index (i i) not exceeding 6.

(6) Any beam or column forming part of, and any structure carrying, an external wall which is required to be constructed of non-combustible materials shall comply with the provisions of paragraph (3) as to non-combustibility.

Separating walls

E8.—(1) Subject to the exceptions specified in paragraph (2), any separating wall shall be imperforate and shall form a complete vertical separation between any buildings separated (including any roof spaces therein).

(2) Nothing in paragraph (1) shall prohibit—

(*a*) the passage through a separating wall of a pipe, if the pipe complies with regulation E12; or

(*b*) an opening in a separating wall which is necessary as a means of escape from fire, if the opening is fitted with a door which—

(i) complies with the requirements of regulation E11; and

(ii) has fire resistance which is not less than the period required by regulation E5 for the separating wall.

(3) Subject to the exceptions specified in paragraph (4), any separating wall which forms a junction with a roof shall be carried above the upper surface of the covering of that roof to a distance of not less than 375 mm (measured at right angles to such upper surface).

(4) A separating wall shall not be required to comply with the provisions of paragraph (3)—

(*a*) if the buildings separated by the separating wall are so constructed that—

(i) any part of the roof which is within 1.5 m of the separating wall is designated AA, AB or AC;

(ii) the deck of such part of the roof is of solid or hollow slab construction of non-combustible material; and

(iii) the junction between the separating wall and such roof is fire-stopped; or

(*b*) if—

(i) each of the buildings separated by the separating wall is of purpose group I, III, IV or VII;

(ii) neither building exceeds 12.5 m in height;

(iii) any part of the roof which is within 1.5 m of the separating wall is covered with non-combustible material or asphalt; and

(iv) the junction between the separating wall and the roof covering is fire-stopped; or

(*c*) if—

(i) each of the buildings separated by the separating wall is a building of purpose group I having not more than three storeys;

(ii) any part of the roof which is within 1.5 m from the separating wall is designated AA, AB or AC; and

(iii) the junction between the separating wall and the roof is fire-stopped.

(5) If any external wall is carried across the end of a separating wall, such external wall and separating wall shall be bonded together or the junction of such walls shall be fire-stopped.

(6) Any combustible material which is built into or carried through, across the end of or over the top of a separating wall shall not be of such a type or used in such a way as will render ineffective the resistance of that wall to the effects or spread of fire:

Provided that—

(*a*) if a building is constructed in compliance with the requirements of paragraph (4)(*b*), nothing in this paragraph shall prohibit the continuation over the top of the separating wall of—

(i) any boarding, with or without sarking felt or sarking paper, if such boarding is used as a base for the roof covering and the boarding is solidly bedded on mortar or other not less suitable material where it rests on the separating wall; or

(ii) any wood wool slabbing, with or without sarking felt or sarking paper, if the slabbing is solidly bedded on mortar or other not less suitable material where it rests on the separating wall; or

(iii) any tiling or slating battens (other than such battens used in connection with (ii) above), if the battens are solidly bedded on mortar or other not less suitable material where they rest on the separating wall and the space between them is filled with mortar or other not less suitable material up to the underside of the roof covering; and

(*b*) if a building is constructed in compliance with the requirements of paragraph (4)(*c*), nothing in this paragraph shall prohibit the roof covering from passing over the top of the wall or any combustible material falling within the provisions of sub-paragraph (*a*)(i), (ii) or (iii) from forming part of a roof which is designated AA, AB or AC.

(7) Any separating wall shall be constructed wholly of non-combustible materials apart from any surface finish which complies with regulation E15 and the required fire resistance shall be attained independently of any such combustible surface finish:

Provided that the requirements of this paragraph shall not apply to—

(*a*) a wall separating buildings which are not divided into compartments and are within the limits of size indicated by the letter 'x' in Part 1 of the Table to regulation E5; or

(*b*) a wall separating single storey buildings which are not divided into compartments and are within the limits of size indicated by the letter 'z' in Part 2 of the Table to regulation E5.

(8) Any beam or column forming part of, and any structure carrying, a separating wall which is required to be constructed of non-combustible materials shall itself comply with the requirements of paragraph (7) as to non-combustibility.

Compartment walls and compartment floors

E9.—(1) Any compartment wall or compartment floor shall be imperforate with the exception of any one or more of the following—

(*a*) (i) in the case of a compartment wall separating a flat or maisonette from any space in common use giving access to that flat or maisonette, an opening fitted with a door which complies with the requirements of regulation E11 and has fire resistance of not less than half an hour; or

(ii) in any other case, an opening fitted with a door which complies with the requirements of regulation E11 and has fire resistance of not less than the minimum period required by regulation E5 for the wall or floor; or

(*b*) an opening for a protected shaft; or

(*c*) an opening for a ventilation duct (other than a duct in, or consisting of, a protected shaft) if—

(i) any space surrounding the duct is fire-stopped; and

(ii) the duct is fitted with an automatic fire-shutter where it passes through the wall or floor; and

(iii) where the duct forms part of a system provided for the purpose of recirculating air through a building, an optical smoke detector (for the purpose of detecting the scattering or absorption of light by smoke particles in a light beam) is fitted in the ductwork which is capable of initiating changes in the operation of the system so as to divert vitiated air containing any smoke to the outside of the building if the smoke reaches an optical density of 0·5dB/m; or

(*d*) an opening for a pipe which complies with the requirements of regulation E12; or

(*e*) an opening for a chimney, appliance ventilation duct or duct encasing one or more flue pipes, in each case complying with the relevant requirements of paragraph (5) and of Part L; or

(*f*) an opening for a refuse chute which complies with the requirements of Part J.

(2) Where a compartment wall or compartment floor joins any compartment wall, external wall or separating wall or any structure enclosing a protected shaft, such structures shall be bonded together at the junction or the junction shall be fire-stopped.

(3) Where any compartment wall forms a junction with a roof, such wall shall be carried above the upper surface of the roof covering for a distance of not less than 375 mm, measured at right angles to the surface of the roof, unless either—

(*a*) the roof complies with the requirements of regulation E8(4)(*a*); or

(*b*) the compartment wall is in a building of purpose group III, IV or VII not exceeding 12.5 m in height and the roof complies with the requirements of regulation E8(4)(*b*)(iii) and (iv):

Provided that nothing in this paragraph shall prohibit the continuation over the top of the wall of any construction which complies with the requirements of regulation E8(6).

(4) Any combustible material which is built into or carried through or across the ends of any compartment wall or compartment floor or carried over the top of any compartment wall shall not be of such a type or used in such a way as will render ineffective the resistance of that wall or floor to the effects or spread of fire.

(5) Any flue in a chimney, any passage in an appliance ventilation duct and any space within a duct encasing one or more flue pipes shall—

(*a*) if the chimney or duct passes through a compartment wall or compartment floor, be separated from that wall or floor and from each compartment adjoining that wall or floor by non-combustible construction having fire resistance of not less than half the minimum fire resistance required by regulation E5 for that wall or floor; or

(*b*) if the chimney or duct forms part of a compartment wall, be separated from any compartment adjoining that wall by non-combustible construction having, at any level, fire resistance of not less than half the minimum fire resistance required by regulation E5 for that wall at that level.

(6) Any compartment wall or compartment floor which is required by regulation E5 to have fire resistance of one hour or more (except where that requirement arises solely by virtue of proviso (*b*) to regulation E5(2)), shall be constructed wholly of non-combustible materials apart from—

(*a*) any floor finish; or

(*b*) any surface finish to a wall or ceiling which complies with the requirements of regulation E15; or

(*c*) any ceiling which complies with a description specified in the Table to regulation E6;

and, apart from any such ceiling, the required fire resistance of the wall or floor shall be obtained without assistance from any combustible material permitted by this paragraph:

Provided that the requirements of this paragraph shall not apply to—

(*a*) the following walls and floors in a building, or a part, of purpose group III which consists of flats or maisonettes—

(i) if that building has three storeys or that part is separated as described in regulation E5(1)(*b*) and has three storeys, any wall or floor other than a wall within a basement storey or a floor immediately over a basement storey; or

(ii) if that building has four storeys or that part is separated as described in regulation E5(1)(*b*) and has four storeys, any floor other than a floor immediately over a basement storey; or

(*b*) any existing floor in a building, or a part, of purpose group IV, V, VI, VII or VIII which is altered or extended if, after alteration or extension, that building does not exceed 15 m in height or that part is separated as described in regulation E5(1)(*b*) and does not exceed 15 m in height.

(7) Any beam or column forming part of, and any structure carrying, any compartment wall or compartment floor which is required to be constructed of non-combustible materials, shall itself comply with the provisions of paragraph (6) as to non-combustibility.

Protected shafts

E10.—(1) In this regulation, "protecting structure" means any wall or floor or other structure which encloses a protected shaft other than—

(*a*) a wall which also forms part of an external wall, separating wall or compartment wall; or

(*b*) a floor which is also a compartment floor or a floor laid directly on the ground; or

(*c*) a roof.

(2) No protected shaft shall be constructed for use for any purposes additional to those specified in regulation E1(1) other than for the passage of a pipe or duct or as sanitary accommodation or washrooms, or both.

(3) Subject to the provisions of this regulation, any protected shaft shall be completely enclosed.

(4) (*a*) Any protecting structure which is required by regulation E5 to have fire resistance of one hour or more shall be constructed wholly of non-combustible materials apart from any surface finish which complies with the requirements of regulation E15:

Provided that the requirements of this sub-paragraph shall not apply to protecting structure which is situated within the ground storey or an upper storey of a building, or a part, of purpose group III consisting of flats or maisonettes if that building has three storeys or that part is separated as described in regulation E5(1)(*b*) and has three storeys.

(*b*) Any beam or column forming part of, and any structure carrying, protecting structure which is required to be constructed of non-combustible materials shall itself comply with the provisions of sub-paragraph (*a*) as to non-combustibility.

(5) Any wall, floor or other structure enclosing a protected shaft but not being protecting structure may contain such openings as shall be in accordance with other provisions of these regulations.

(6) There shall be no opening in any protecting structure other than any one or more of the following—

(*a*) an opening for a pipe which complies with the requirements of regulation E12; or

(*b*) an opening fitted with a door which has fire resistance complying with the provisions of paragraph (7) and complies with the provisions of regulation E11; or

(*c*) (if the protected shaft contains a lift) an opening which complies with the provisions of paragraph (8); or

(*d*) (if the protected shaft serves as, or contains, a ventilating duct) an inlet to or outlet from that duct or an opening for that duct.

(7) Any door fitted in an opening in protecting structure shall have fire resistance for the following minimum period—

(*a*) if the protected shaft is in a building of purpose group III, IV or VII and is wholly or partly above the level of the adjoining ground, not less than half an hour; or

(*b*) in any other case, either not less than half the period required by other provisions of this Part for the protecting structure surrounding the opening or not less than half an hour (whichever is the greater).

(8) Any protected shaft containing a lift or lifts—

(*a*) shall be ventilated to the external air by means of one or more permanent openings situated at the top of the shaft and having a total unobstructed area of not less than 0.1 m^2 for each lift in the shaft;

(*b*) shall not contain any pipe conveying gas or oil or any ventilating duct; and

(*c*) may have an opening in its protecting structure for the passage of the cables operating the lift into the room containing the lift motor:

Provided that, if the opening is at the bottom of the shaft, the opening shall be as small as practicable.

(9) (*a*) If a protected shaft serves as, or contains, a ventilating duct—

(i) the duct shall be fitted internally with automatic fire shutters so constructed, at such intervals and in such positions as may be necessary to reduce so far as practicable the risk of fire spreading from a compartment to any other compartment, or such other provision shall be made as will reduce such risk so far as practicable; and

(ii) the duct shall not be constructed of, or lined with, any material which substantially increases such risk.

(*b*) In addition, in the case of a protected shaft containing a ventilating duct, the shaft shall be so constructed with such additional barriers to fire between the duct and the shaft as may be necessary to reduce so far as practicable the risk of fire spreading from a compartment to any other compartment.

(10) If a protected shaft consists of a stairway, it shall not contain any pipe conveying gas or oil or any ventilating duct.

(11) If a protected shaft contains a pipe conveying gas, the shaft shall be adequately ventilated direct to the external air.

Fire-resisting doors

E11.—(1) This regulation shall apply to any door which is required by the provisions of this Part to have fire resistance.

(2) In this regulation—

"automatic self-closing device" does not include rising butt hinges except in relation to a door to which paragraph (5) applies; and

"electro-magnetic or electro-mechanical device susceptible to smoke" refers only to any such device which will allow the door held open by it to close automatically upon the occurrence of each or any one of the following—

(*a*) detection of smoke by automatic apparatus suitable in nature, quality and location;

(*b*) manual operation of a switch fitted in a suitable position;

(*c*) failure of electricity supply to the device, apparatus or switch;

(*d*) if a fire alarm system is installed in the building, operation of that system.

(3) (*a*) Subject to paragraph (7) any door to which this regulation applies shall be fitted with an automatic self-closing device capable of returning the door to the fully closed position from any angle of swing.

(*b*) No means of holding any such door open shall be provided other than a fusible link or, if the door is so constructed and installed that it can readily be opened manually, an electro-magnetic or electro-mechanical device susceptible to smoke.

(*c*) No part of a hinge on which any such door is hung shall be made either of combustible material or of non-combustible material having a melting point less than 800°C.

(4) Any door fitted in an opening which is provided as a means of escape in the event of fire or might be so used shall be so constructed and installed that it can readily be opened manually and shall not be held open by any means other than an electro-magnetic or electro-mechanical device susceptible to smoke:

Provided that there may also be installed so as to close the same opening a door which cannot readily be opened manually if—

(*a*) such door is fitted with an automatic self-closing device and is held open by a fusible link;

(*b*) the manually openable door has fire resistance of not less than half an hour; and

(*c*) the required fire resistance is achieved by the two doors together.

(5) Any door to which reference is made in regulation E9(1)(*a*)(i), E13(2)(*c*), E13(3)(*c*), E14(9)(*c*)(vi) or E18(6)(*c*)(ii) shall be either a single leaf door swinging in one direction only or a double leaf door each leaf of which swings in the opposite direction from the other leaf.

(6) Any door which is fitted in protecting structure (as defined in regulation E10(1)) and is not required by the provisions of regulation E10(7) to have fire resistance of more than half an hour may consist of any single or double leaf door (the leaf or each leaf of which swings in one or both directions), other than a double leaf door both leaves of which swing in one and the same direction and have rebated meeting stiles, if—

(*a*) the door opens into a hall, lobby or corridor enclosed by walls or partitions having fire resistance of not less than half an hour; and

(*b*) the clearance between the leaf or leaves of any such door and its frame and (if the door has two leaves) between the leaves is as small as is reasonably practicable.

(7) Notwithstanding paragraph (3)(*a*), a door which is not fitted with a self-closing device may be installed in an opening in the structure which encloses a protected shaft containing exclusively a lift or lifts if either—

(*a*) the door has fire resistance for a period of not less than half an hour and there is also installed so as to close the same opening another door which is fitted with an automatic self-closing device, is held open by a fusible link and has fire resistance for a period not less than that prescribed by the relevant provisions of this Part for the structure surrounding the opening; or

(*b*) (unless the opening is in a compartment wall and is one of two openings provided at the same level to allow access to a lift from different sides) the door has fire resistance for a period not less than that prescribed by relevant provisions of this Part for the structure surrounding the opening.

(8) Without prejudice to the requirements of paragraphs (4) to (7), two fire-resisting doors (each being either a single or a double leaf door) may be installed in an opening if each by itself is capable of closing the opening and the required fire resistance is achieved by the two doors together.

Penetration of structure by pipes

E12.—(1) In this regulation, "pipe"—

(*a*) excludes a flue pipe and any pipe used for ventilation purposes other than a ventilating pipe as defined in regulation N2(1); and

(*b*) includes pipe fittings and accessories.

(2)(*a*) Subject to the provisions of paragraph (3), the nominal internal diameter of that part of a pipe which passes through—

(i) an opening in a separating wall or protecting structure; or

(ii) an opening in a compartment wall or compartment floor other than any such opening which is wholly enclosed within a protected shaft; or

(iii) an opening in a cavity barrier,

shall not exceed the relevant dimension prescribed in the Table to this regulation:

Provided that if, on either side of the structure penetrated and within a distance of 1 m. (measured along the pipe) from the point of penetration, the pipe which penetrates the structure, being of specification (*a*), is connected to a pipe of specification (*b*) or (*c*) or, being of specification (*b*), is connected to a pipe of specification (*c*), the maximum internal diameter of the pipe shall be determined as though it were of the same specification as the pipe to which it is connected.

(*b*) Any opening referred to in sub-paragraph (a), shall be as small as is reasonably practicable and shall be fire-stopped around the pipe.

(3) Notwithstanding the requirements of paragraph (2)(*a*), a pipe which forms part of an above ground drainage system comprising pipes which comply with specification (*b*) in the Table and have a nominal internal diameter not exceeding 150 mm in the case of a stack pipe or 100 mm in the case of a branch pipe may pass through an opening in a separating wall between houses or an opening in a compartment wall or compartment floor between flats or maisonettes if—

(*a*) the pipe, being a stack pipe, is contained in each storey within an enclosure or, being a branch pipe, discharges into a stack pipe contained within an enclosure formed in part by the wall penetrated by the branch pipe;

(*b*) any such enclosure—

(i) extends, in each storey, from the floor to the ceiling of that storey or, if the ceiling is suspended beneath a floor, to that floor;

(ii) has each side formed by a separating wall, compartment wall or external wall or by casing;

(iii) has an internal surface, excluding any supporting members, which complies with the requirements for Class O specified in regulation E15(1)(*e*);

(iv) has no access panel situated in a bedroom or circulation space; and

(v) is not used for any other purpose except to accommodate pipes conveying water;

(*c*) any such casing—

(i) is imperforate except for any opening made for the passage of a pipe or fitted with an access panel;

(ii) consists of any material other than sheet metal; and

(iii) (including any access panel) has fire resistance of not less than half an hour; and

(*d*) any opening made for the passage of a pipe through a side of an enclosure or through a floor at the base or top of an enclosure (including, in the case of a maisonette, any floor within the dwelling) is as small as is reasonably practicable and is fire-stopped around the pipe.

TABLE TO REGULATION E12

(Maximum nominal internal diameter of pipes)

	Specification of pipe (1)	*Maximum nominal internal diameter of pipe (in mm)* (2)
(*a*)	Pipe made of any non-combustile material which, if exposed to a temperature of 800°C, will not soften and will not fracture to such an extent as to permit flames or hot gases to pass through the wall of the pipe.	150
(*b*)	Pipe made of lead or aluminium or alloy thereof; asbestos-cement pipe; or unplasticised polyvinyl chloride pipe complying with BS 4514: 1969.	100 if it penetrates structure (other than a separating wall) enclosing a protected shaft not regularly used for the passage of people. 38 in all other cases.
(*c*)	Pipe made of any other material.	38

Stairways

E13.—(1) Every stairway (including any landing thereof) which forms part of a building shall, whether the stairway is internal or external, be constructed of non-combustible material except—

(*a*) an internal stairway which is situated—

(i) within a maisonette; or

(ii) within any storey which comprises elements of structure for which the fire resistance required by this Part is less than one hour; or

(iii) within the ground storey or an upper storey of a building or part of purpose group III which consists of flats or maisonettes if that building has not more than three storeys or that part is separated as described in regulation E5(1)(*b*) and has not more than three storeys; or

(iv) within a building or compartment of purpose group V but not within a protected shaft; or

(*b*) an external stairway which is situated between the ground and a floor or flat roof the level of which, at the head of the stairway, is not more than 6 m above the finished surface of the ground adjoining the foot of the stairway:

Provided that nothing in this paragraph shall prohibit the addition of any combustible material to the upper surface of any stairway or landing.

(2) Any building of purpose group I which has three or more storeys shall be so designed and constructed as to comply with the following provisions—

(*a*) any internal stairway, together with any hall or landing associated therewith and any part of a floor which affords passage between flights of the stairway, shall be separated from all other parts of the building by structure which has fire resistance of not less than the minimum period required by regulation E5 for elements of structure forming part of the storey in which it is situated;

(*b*) subject to paragraph (3), the space associated with the stairway and enclosed by the fire-resisting structure within the ground storey of the building shall extend to an external doorway which provides ready access to a place of safety outside the building (that is to say, a place in which persons would be in no danger from fire within the building); and

(*c*) any opening in the fire-resisting structure which gives access to a habitable room or kitchen shall be fitted with a door which has fire resistance of not less than half an hour and complies with the requirements of regulation E11.

(3) The requirement of paragraph (2)(*b*) shall not apply if—

(*a*) the fire-resisting structure enclosing the stairway within the ground storey of the building contains two or more openings each of which affords a route to an external doorway which provides ready access to a place of safety outside the building;

(*b*) each such route is separated from any other such route by structure having not less fire resistance than the minimum period referred to in paragraph (2)(*a*); and

(*c*) any opening in such structure is fitted with a door which has fire resistance of not less than half an hour and complies with the requirements of regulation E11.

Provision and construction of cavity barriers and fire stops

E14.—(1) For the purposes of this regulation—

(*a*) "cavity" means any space enclosed by the elements of a building (including a suspended ceiling) or contained within an element other than a room, cupboard, circulation space, protected shaft or the space within a flue, chute, duct, pipe, or conduit;

"cavity barrier" means construction provided to close a cavity against penetration of smoke or flame or provided within a cavity to restrict movement of smoke or flame within the cavity; and includes construction provided for another purpose if such construction conforms with the criteria required of a cavity barrier; and

"fire stop" means a seal of non-combustible material provided to close an imperfection of fit between elements, components or construction in a building so as to restrict penetration of smoke or flame through that imperfection; and

(*b*) any requirement that a cavity shall be closed or that movement or penetration of smoke or flame shall be restricted means, where not more precisely defined, that the construction provided for such purpose shall be capable of performing such functions in relation to both smoke and flame.

(2) Subject to the exception in paragraph (5)—

(*a*) every cavity contained within an element shall be closed by a cavity barrier around the perimeter of any opening through the element; and

(*b*) if any element containing a cavity meets another such element, the cavities shall be so closed that they do not communicate one with another.

(3) Subject to the exceptions in paragraphs (5) and (6), every cavity shall be subdivided by means of a cavity barrier in the same plane as any element which—

(*a*) abuts against the element containing, or an element enclosing, the cavity; and

(*b*) consists of—

(i) any wall, floor, ceiling, roof or other structure which is required to have fire resistance for the purposes of this Part or Part EE, or would be so required if the building were being newly erected, other than a wall which is required to have fire resistance solely because it is loadbearing; or

(ii) any frame fitted with a door which likewise is or would be required to have fire resistance.

(4) Subject to the exceptions in paragraphs (5) and (7), every cavity shall be subdivided by means of cavity barriers in such positions that the distance between cavity barriers (measured along the members bounding the cavity) does not exceed the distance, if any, specified in the Table to this paragraph.

TABLE TO REGULATION E14(4)

(Maximum distance between cavity barriers)

Location of cavity	Purpose group of building or compartment	Class of surface exposed within the cavity, excluding the surface of any pipe, cable or conduit	Maximum distance
(1)	(2)	(3)	(4)
Between a roof and a ceiling	Purpose group I and flats or maisonettes within purpose group III	Any	No limit
	Purpose group II and III except flats and maisonettes	Any	15m and, in addition, area limited to 100 m^2
	Any other purpose group	Any	20m
Other than between a roof and a ceiling	Any purpose group	Class 0	20 m
		Other than Class 0	8 m

(5) Notwithstanding the requirements of paragraphs (2), (3) and (4), any cavity within a wall which complies with the following provisions may be unlimited as to extent and may communicate with another such cavity—

(*a*) the wall consists of two leaves, each being not less than 75 mm thick and constructed of non-combustible materials;

(*b*) the cavity does not exceed 100 mm in width and is closed by a cavity barrier at the top of the wall and at the top of any opening in the wall; and

(*c*) there is no combustible material exposed or situated within the cavity other than—

(i) insulating material which, except in the case of a wall forming part of a building of purpose group I, completely fills the cavity; or

(ii) timber lintels, window or door frames or the end faces of joists; or

(iii) pipes, conduits or cables; or

(iv) closers, flashings, damp proof courses or wall ties.

(6) The requirements of paragraph (3) shall not apply to—

(*a*) any cavity between a floor next to the ground or oversite concrete and the ground or oversite concrete; or

(*b*) any cavity within a floor or within, or enclosed by, a roof if the cavity is enclosed on the lower side by a ceiling which—

(i) extends throughout the building or compartment;

(ii) is not so constructed as to be demountable;

(iii) has fire resistance of not less than half an hour;

(iv) is imperforate save for openings that would be permissible under paragraph (9)(*c*) if the ceiling were a cavity barrier;

(v) has an upper surface of Class 1 as defined in regulation E15(1)(*f*);

(vi) has a lower surface which (if tested in accordance with BS476: Part 6: 1968) has an index of performance (I) not exceeding 12 and a sub-index (i_1) not exceeding 6; or

(*c*) any cavity in a roof at its junction with an external wall where the provision of a cavity barrier would prevent direct ventilation between the roof space and the external air; or

(*d*) any cavity within, or enclosed by, the roof of a building of purpose group I other than any such cavity which is situated immediately over a stairway enclosure to which regulation E13(2) refers and is not separated from that enclosure by a ceiling as described in sub-paragraph (*b*).

(7) The requirements of paragraph (4) shall not apply to—

(*a*) any cavity between a floor next to the ground or oversite concrete and the ground or oversite concrete if there is no access provided for persons to that cavity or the height of that cavity does not exceed 1 m; or

(*b*) any cavity between non-combustible sheeting forming a roof covering if—

(i) the cavity is filled with insulating material having a surface of a class not lower than Class I as defined in regulation E15(1)(*f*); or

(ii) in any case where complete filling is not reasonably practicable because the sheets have different profiles in cross-section, a layer of such material separates the sheets and is in contact with both in line with the bottom of each corrugation in the upper sheet.

(8) (*a*) A cavity barrier which is required by any regulation in this Part and is of such dimensions as to include within its surface a square having sides of 1 m in length shall have fire resistance of not less than half an hour.

(*b*) A cavity barrier which is required by any regulation in this Part and is of such dimensions as not to include within its surface such a square shall be constructed in a manner wholly similar to construction having fire resistance of not less than half an hour or shall be constructed of—

(i) asbestos building or insulating board (but not asbestos-cement sheet) not less than 9 mm thick; or

(ii) plasterboard not less than 12.5 mm thick; or

(iii) steel not less than 3 mm thick; or

(iv) timber not less than 38 mm thick; or

(v) wire-reinforced mineral wool blanket not less than 50 mm thick; or

(vi) cement mortar, plaster or other non-combustible material not less than 25 mm thick.

(9) A cavity barrier—

(*a*) shall be fixed in such a manner that its performance is unlikely to be rendered

ineffective by movement of the building due to subsidence, shrinkage, or thermal change or by failure in a fire of its fixings or the material against which it abuts;

(*b*) shall be fitted tightly, to rigid construction or, if it abuts against slates, tiles, corrugated sheeting or other construction to which it cannot be so fitted, its junction with that construction shall be fire-stopped; and

(*c*) shall be imperforate with the exception of any one or more of the following—

(i) an opening for a pipe which complies with the requirements of regulation E12; or

(ii) an opening for a cable or a conduit containing one or more cables; or

(iii) an opening fitted with an automatic fire shutter; or

(iv) an opening for a duct which is fitted with an automatic fire shutter where it passes through the barrier; or

(v) an opening for a continuous duct which is constructed of mild steel not less than 0.7 mm thick; or

(vi) an opening fitted with a door which complies with the requirements of regulation E11 and has fire resistance of not less than half an hour.

(10) (*a*) Any opening provided through any part of an element of structure or a cavity barrier for the passage of a pipe, duct, conduit or cable shall be no larger than is necessary for that purpose and shall be fire-stopped.

(*b*) Fire-stopping around a pipe or duct shall be so arranged as not to restrict thermal movement.

(*c*) Non-rigid materials used for fire-stopping shall be reinforced with or supported by non-combustible materials to prevent displacement and in any case where the unsupported span would exceed 100 mm.

Restriction of spread of flame over surfaces of walls and ceilings

E15.—(1) For the purposes of this regulation and the Table hereto—

(*a*) "ceiling" includes any soffit and any rooflight or other part of a building which encloses and is exposed overhead within a room, circulation space or protected shaft;

"circulation space" means any space which is solely or predominantly used as a means of access between a room and a protected shaft or between either a room or a protected shaft and an exit from the building or compartment;

"rooflight" includes any domelight, lantern light, skylight or other element intended to admit daylight;

"small room" means a room which is totally enclosed and has a floor area not exceeding that specified in column (2) of the Table to this regulation, according to the purpose group of the building or compartment; and

"trim" means any architrave, cover mould, picture rail, skirting or similar narrow member;

(*b*) any reference to the surface of a wall shall be construed as a reference to that surface including the surface of any glazing but excluding the surface of any unglazed portion of a door, any door frame, window frame, frame in which glazing is fitted, fireplace surround, mantleshelf, fitted furniture or trim;

(*c*) any reference to the surface of a ceiling shall be construed as a reference to that surface excluding the surface of the frame of any rooflight;

(*d*) any part of a ceiling which slopes at an angle of 70° or more to the horizontal and is not part of a rooflight shall be deemed to be a wall;

(*e*) any reference to a surface being of Class 0 shall be construed as a requirement that—

(i) the material of which the wall or ceiling is constructed shall be non-combustible throughout; or

(ii) the surface material (or, if it is bonded throughout to a substrate, the surface material in conjunction with the substrate) shall have a surface of Class 1 and, if tested in accordance with BS476: Part 6: 1968, shall have an index of performance (I) not exceeding 12 and a sub-index (i_1) not exceeding 6:

Provided that the face of any plastics material Type 1 shall not be regarded as a surface of Class 0 unless—

(*a*) the material is bonded throughout to a substrate which is not a plastics material and the material in conjunction with the substrate satisfies the test criteria prescribed in (ii) above; or

(*b*) the material satisfies the test criteria prescribed in (ii) above and is used as the lining of a wall so constructed that any surface which would be exposed if the lining were not present satisfies the said test criteria and is the face of any material other than a plastics material Type 1;

(*f*) any reference to a surface being of a class other than Class 0 shall be construed as a requirement that the wall or ceiling shall be so constructed that a specimen constructed to the same specification, if exposed to test by fire in accordance with BS476: Part 7: 1971, would comply with the test criteria as to surface spread of flame specified in relation to that class:

Provided that a wall or ceiling shall be deemed to have a surface of the requisite class if it is constructed to the same specification as that of a specimen which prior to 1st June 1975 was either proved to satisfy the relevant test criteria prescribed in clause 7 of BS476: Part 1: 1953 or was assessed by an appropriate authority as capable of satisfying those criteria;

and

(*g*) in relation to a requirement that a surface shall be of a class not lower than a specified class, Class 0 shall be regarded as the highest class followed in descending order by Class 1, Class 2, Class 3 and Class 4.

(2) The surface of a wall or ceiling in a room, circulation space or protected shaft shall be of a class not lower than that specified as relevant in the Table to this regulation:

Provided that—

(*a*) a wall of a room may have a surface of any class not lower than Class 3 to the extent permitted by paragraph (3);

(*b*) an external wall of a room may have openings glazed in the manner permitted by regulation E16(2) and openings so glazed may be disregarded for the purposes of paragraph (3); and

(*c*) a ceiling may either have a surface of any class not lower than Class 3 to the extent permitted by paragraph (4) or may consist of plastics material to the extent permitted by regulation E16(3).

(3) Any part of the surface of a wall in a room may be of any class not lower than Class 3 if the area of that part (or, if there are two or more such parts in a room, the aggregate area of those parts) does not exceed the lesser of the following—

(*a*) half the floor area of the room; or

(*b*) (in the case of a building or compartment of purpose group I, II, or III) 20 m^2 or (in any other case) 60 m^2.

(4) Any part of the surface of a ceiling may be of any class not lower than Class 3 if that part of the surface is the face of a layer of material the other face of which is exposed to the external air and—

(*a*) (i) the ceiling is that of a room in a building or compartment of purpose group I, II, III, IV, V or VII or that of a circulation space in a building or compartment of any purpose group;

(ii) the area of that part does not exceed 5 m^2; and

(iii) the distance between that part and any other such part is not less than 2.8 m if each part is a rooflight which complies with the provisions of paragraph (5) or 3.5 m in any other case; or

(*b*) (i) the ceiling is that of a room in a building or compartment of purpose group VI or VIII;

(ii) the area of that part does not exceed 5m^2;

(iii) the distance between that part and any other such part is not less than 1.8 m; and

(iv) that part and all other such parts are evenly distributed over the whole area of the ceiling and together have an area which does not exceed 20% of the floor area of the room; or

(*c*) the ceiling is that of a balcony, verandah, open carport, covered way or loading bay which (irrespective of its floor area) has at least one of its longer sides wholly and permanently open; or

(*d*) the ceiling is that of a garage, conservatory or outbuilding which (irrespective of whether it forms part of a building or is a building which is attached to another building or wholly detached) has a floor area not exceeding 40 m^2.

(5) The provisions referred to in paragraph (4)(*a*)(iii) are—

(*a*) that the rooflight is so designed and installed that every part of the internal surface of the light-transmitting material is above the general plane of the ceiling by no less than one quarter of the greatest dimension of that material measured internally on plan; and

(*b*) that any exposed internal surface (other than the frame of the rooflight) between the light-transmitting material and the general plane of the ceiling is of a class not lower than that required for the surface of the ceiling.

TABLE TO REGULATION E15

(Surfaces of walls and ceilings)

Purpose group of building or compartment	Maximum floor area of small room (in m^2)	Class of surface for both walls and ceilings (except where separately specified)		
		Small rooms (see col.(2))	Rooms other than small rooms	Circulation spaces and protected shafts
(1)	(2)	(3)	(4)	(5)
I (Small residential)—				
House having not more than two storeys	4	3	1 (Wall) 3 (Ceiling)	1 (Wall) 3 (Ceiling)
Any other house	4	3	1	0
II (Institutional)	4	1	0 (Wall) 1 (Ceiling)	0
III (Other residential)	4	3	1	0
IV (Office)	30	3	1	0
V (Shop)	30	3	1	0
VI (Factory)	30	3	1	0
VII (Assembly)	30	3	1	0
VIII (Storage and general)	30	3	1	0

Exceptions permitting the use of certain plastics materials

E16.—(1) The provisions of regulation E15(1) shall apply for the interpretation of this regulation.

(2) Any glazing which is fitted in an opening situated in an external wall enclosing a room may consist of a single layer of rigid sheeting of plastics material Type 3.

(3) Any part of the ceiling of a room or circulation space may consist of—

(*a*) rigid sheeting of plastics material Type 3 if the face of the sheeting which is not the surface of the ceiling is exposed to the external air; or

(*b*) one or more panels of such plastics materials as are permitted by paragraph (4) if the upper and lower surfaces of any part of the ceiling which is not formed by a panel of

plastics material and the surfaces of all other parts of the structure which enclose the space over the ceiling are of a class not lower than that prescribed in the Table to regulation E15 for the ceiling of such a room or circulation space.

(4) Panels to which paragraph (3)(*b*) refers may consist of one or more sheets or membranes of either—

(*a*) plastics material Type 2 if—

(i) the nominal thickness of the sheet or membrane (or, if a panel consists of two or more sheets or membranes, their nominal aggregate thickness) does not exceed 3 mm;

(ii) the aggregate area of the plastics material, if situated in a building or compartment of purpose group II, III or VII, does not exceed 30% of the floor area of the room or 15% of the floor area of the circulation space, as the case may be, or, if situated in a building or compartment of any other purpose group, does not exceed 50% of the floor area of the room or 15% of the floor area of the circulation space, as the case may be;

(iii) no panel has any side exceeding 5 m in length or an area exceeding 4 m^2 if situated in a room or 2m^2 if situated in a circulation space; but if two or more panels are grouped so that each is less than 575 mm from another, the said maximum dimensions shall be applied to the smallest rectangle which would wholly enclose all such panels; and

(iv) every panel is loosely mounted in such a way that it will fall out of its mountings when softened by heat; or

(*b*) plastics material Type 4 or 5 if—

(i) the nominal thickness of the sheet or membrane (or, if a panel consists of two or more sheets or membranes, their nominal aggregate thickness) does not exceed 1 mm; and

(ii) no panel has an area exceeding 4 m^2.

Roofs

E17.—(1) No part of the roof of a building which—

(*a*) has a cubic capacity exceeding 1500 m^3; or

(*b*) is wholly or partly of purpose group VI or VIII; or

(*c*) is a house in a continuous terrace of more than two houses,

shall be so constructed as to be designated BD, CA, CB, CC, CD, DA, DB, DC or DD or be covered with thatch or wood shingles.

(2) Any part of a roof which is designated BA, BB or BC shall be not less than 6 m from any point on a boundary.

(3) Any part of a roof which is designated AD, BD, CA, CB, CC or CD or is covered with thatch or wood shingles shall be not less than the following distance from any point on a boundary—

(*a*) 6 m if such part is—

(i) of an area not exceeding 3 m^2; and

(ii) separated from any other such part by an area of roof at least 1·5 m wide and covered by non-combustible material; or

(*b*) 12 m in any other case.

(4) Any part of a roof which is designated DA, DB, DC or DD shall be—

(*a*) not less than 22 m from any point on a boundary;

(*b*) of an area not exceeding 3 m^2; and

(*c*) separated from any other part of the same roof which is so designated by an area of roof at least 1·5 m wide and covered with non-combustible material.

(5) If any part of a roof cannot be designated under regulation E1(6) on account of the low softening temperature of its covering material, such part shall be not less than the following distance from any point on a boundary—

(*a*) 6 m if such part is—

(i) of an area not exceeding 3m²; and

(ii) separated from any other such part by an area of roof at least 1·5 m wide and covered by non-combustible material; or

(*b*) 12 m or twice the height of the building, whichever is the greater, in any other case.

(6) Nothing in this regulation shall prevent—

(*a*) any part of a roof being constructed of glass or rigid sheeting of plastics material Type 3 being in either case material which cannot be designated in accordance with regulation E1(6) if either—

(i) that part of the roof is not less than 6 m from any boundary; or

(ii) that part of the roof is less than 6 m from any boundary, and the roof is that of a garage, conservatory or outbuilding having a floor area not exceeding 40 m² (whether or not attached to or forming part of another building) or is the roof of, or a canopy over, a balcony, verandah, open carport, covered way or detached swimming pool; or

(*b*) any part of a roof being constructed of a layer of material described in column (1) of the Table to this regulation if—

(i) the inner surface of that layer constitutes part of a ceiling and complies with regulation E15(4);

(ii) the area of roof which separates that part from any other such part is covered by non-combustible mterial; and

(iii) that part is not less than the distance specified in that Table from any point on a boundary.

TABLE TO REGULATION E17

(Minimum distance of certain parts of a roof from boundary)

Description of material (1)	Minimum distance from boundary (in m) (2)
1. Material designated AD, BD, CA, CB, CC or CD or not capable of designation owing to low softening temperature	6
2. Material designated DA, DB, DC or DD	22

Small garages

E18.—(1) The following provisions (subject to the provisions of regulation E19 regarding small open carports) shall apply to any garage which has a floor area not exceeding 40 m².

(2) If such garage is a separate building and—

(*a*) is not less than 2 m from any boundary and any house within the boundary; or

(*b*) (being less than 2 m from any boundary) complies with the requirements of paragraph (3); or

(*c*) (being less than 2 m from any house within the boundary) complies with the requirements of paragraph (4),

it shall not be required to comply with any regulation in this Part except regulation E17 and any other provisions expressly referred to in this regulation.

(3) Any such garage which is less than 2 m from any boundary shall be so constructed that any part of an external wall which is less than 2 m from the boundary is externally non-combustible and the walls of the garage have an internal surface which fulfils the requirements for Class 0 specified in regulation E15(1)(*e*).

(4) Any such garage which is less than 2 m from any house within the same boundary shall be so constructed that any part of an external wall which is less than 2 m from such house is externally non-combustible and the walls of the garage have an internal surface which fulfils the requirements for Class 0 specified in regulation E15(1)(*e*); but these requirements shall not apply if every part of any external wall of such house which is less than 2 m from the garage—

(*a*) is externally non-combustible;

(*b*) has resistance to external fire of not less than half an hour; and

(*c*) has no unprotected area which exceeds 0.1 m^2 or is less than 1.5 m from any other unprotected area in that part.

(5) In the application of paragraphs (3) and (4), any exposed surface of a frame member forming the structure of a wall shall not be deemed to be part of the internal surface of that wall.

(6) If a garage to which paragraph (1) applies is attached to or forms part of a house, it shall be so constructed that—

(*a*) any floor immediately over such garage has fire resistance of not less than half an hour;

(*b*) any wall between such garage and such house has fire resistance of not less than half an hour; and

(*c*) any opening in such wall is—

(i) at its lowest point, not less than 100 mm above the level of the garage floor; and

(ii) fitted with a door, shutter or cover which has fire resistance of not less than half an hour and complies with the requirements of regulation E11.

Small open carports

E19.—(1) Any open carport (as defined in regulation E1(1)) which has a floor area not exceeding 40 m^2 and complies with any condition specified in paragraph (2) shall not be required to comply with any regulation in this Part except regulation E17.

(2) The conditions referred to in paragraph (1) are as follows—

(*a*) that such carport is a detached building; or

(*b*) that such carport is part of a detached building which consists additionally only of a garage which also has a floor area not exceeding 40 m^2 and would, if it were a separate building, comply with the provisions of regulation E18; or

(*c*) that such carport is a single storey part of a building which consists additionally only either of a house alone or of a house and garage (the garage having a floor area not exceeding 40 m^2) and that, if the presence of the carport were disregarded—

(i) the house, where there is no garage, would comply with the requirements of regulation E7; or

(ii) the house and garage, if they would then constitute one building, would comply with the requirements of regulation E7; or

(iii) the house and garage, if they would then constitute separate buildings, would comply with the requirements of regulations E7 and E18 respectively:

Provided that, where this regulation applies by virtue of the erection of an open carport as an extension to an existing house or garage or both, the conditions in sub-paragraphs (*b*) and (*c*) shall be applicable as though any reference therein to compliance with regulations E7 and E18, or either of them, were omitted.

EXPLANATORY NOTE

(This note is not part of the Regulations.)

These regulations further amend the Building Regulations (Northern Ireland) 1977. They come into operation on 1st July 1982 but do not apply to work which has been completed, or for which plans have been deposited with a district council before that date.

These regulations introduce a new Part E (Structural Fire Precautions) which is a revision of Part E (Structural Fire Precautions) of the existing regulations.

The principal amendments included in the revised Part E:—

(*a*) define terms, apply specific requirements to certain multi-storey and single storey assembly buildings, and specify appropriate methods of test and periods of fire resistance (regulations E1, E4, E5 and E7);

(*b*) apply controls on all purpose groups for buildings to be erected on land occupied in common with other buildings (regulation E7);

(*c*) make provisions for pipes passing through an opening in a "cavity barrier", including fire stopping around water pipes where these penetrate the structure (regulation E12);

(*d*) introduce requirements for the fire resisting structure enclosing the stairway in a house having three or more storeys (regulation E13);

(*e*) include further measures to control the movement of smoke and flame within a building (regulation E14);

(*f*) introduce less onerous requirements for rooflights and extend the control over wall surfaces to include the surface of glass or other light transmitting material (regulations E15 and E17); and

(*g*) introduce provisions to cater for the permitted use of certain specific plastics materials in particular situations and provide means of identifying these materials (regulations E16 and E1).

Other minor amendments have been made, including amendments to Part A and Schedule 2 to clarify the application of regulations A10 and A11 to partially exempted buildings.