STATUTORY INSTRUMENTS

1979 No. 310 (S.29)

BUILDING AND BUILDINGS

The Building Standards (Scotland) Amendment Regulations 1979

Made - - - -	*12th March* 1979
Laid before Parliament	*27th March* 1979
Coming into Operation	*1st June* 1979

In exercise of the powers conferred on me by sections 3 and 24 of and the Fourth Schedule to the Building (Scotland) Act 1959**(a)** and of all other powers enabling me in that behalf, and having consulted the Building Standards Advisory Committee and such other bodies as appear to me to be representative of the interests concerned, I hereby make the following regulations:—

Citation and commencement

1.—(1) These regulations may be cited as the Building Standards (Scotland) Amendment Regulations 1979, and the Building Standards (Scotland) Regulations 1971 to 1975 and these regulations may be cited together as the Building Standards (Scotland) Regulations 1971 to 1979.

(2) These regulations shall come into operation on 1st June 1979.

Interpretation

2. In these regulations, unless the context otherwise requires—

(*a*) "the building standards regulations" means the Building Standards (Scotland) (Consolidation) Regulations 1971**(b)** as amended by the Building Standards (Scotland) Amendment Regulations 1973**(c)** and the Building Standards (Scotland) Amendment Regulations 1975**(d)** and other words and expressions have the same meanings as in the said regulations;

(*b*) any reference to a Part, regulation or Schedule shall be construed as a reference to a Part or regulation of, or Schedule to, the building standards regulations and any reference to a numbered Table shall be construed as a reference to a Table in Schedule 9 to the building standards regulations.

Transitional provision

3. In relation to the granting of a warrant for the construction or change of use of a building where application therefor was made before the date of coming into operation of these regulations, and in relation to any subsequent extension of the period of validity of such a warrant or amendment of its terms, these regulations shall not be treated as having amended the building standards

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(a) 1959 c. 24, section 3 is amended by section 75 of the Health and Safety at Work etc. Act 1974, c. 37 and section 1 of the Building (Scotland) Act 1970, c. 38.
(b) S.I. 1971/2052. **(c)** S.I. 1973/794. **(d)** S.I. 1975/404.

regulations for the purpose of construing the words "building standards regulations" in section 6(2), (3), (3A), (7) and (8) and sections 6A and 10 of the Building (Scotland) Act 1959.

Amendment of the Building Standards Regulations

4. The building standards regulations shall be amended as provided in these regulations.

5. In regulation A3(8) after the word "regulations" where it second occurs there shall be inserted the words ", any reference to a Section which is not otherwise identified shall be construed as a reference to that Section of the Part in which the reference occurs".

6. In Part J, after the heading "RESISTANCE TO THE TRANSMISSION OF HEAT" there shall be inserted the sub-heading "SECTION 1: HOUSES AND CHALETS".

7. In the headings to regulations J1 and J2 for the words "Part J" there shall be substituted the words "Section 1".

8. In regulations J1, J2, J3, J4, J5 and J6 for the word "Part" wherever it occurs as meaning Part J of the regulations there shall be substituted the word "Section".

9. In regulation J1(1)—

(i) for the words "occupancy group A" where they first occur there shall be substituted the words "occupancy sub-group A1 or A2 or to a chalet in occupancy sub-group A3 (other than a temporary chalet)";

(ii) sub-paragraphs (*a*) and (*b*) shall be deleted;

(iii) in sub-paragraph (*c*) for the words "a building of occupancy group A" there shall be substituted the words "such a building".

10. In regulation J4(2) in sub-paragraph (*a*)(ii) for the words "in any other case" there shall be substituted the words "in the case of a building consisting of one or more chalets".

11. In regulation J5(2) for "0·18" there shall be substituted "0·24".

12. After Section 1 of Part J there shall be inserted the Section set out in Schedule 1 to these regulations.

13. In regulation L2(1) in the definition of "external obstruction" for the word "including" there shall be substituted the word "excluding".

14. In regulation M22(1) for sub-paragraph (*f*) there shall be substituted the following sub-paragraph:—

"(*f*) subject to paragraph (2) below discharge into a drain connected with a drainage system or into a surface water drain connected with a suitable

soakaway, ditch or other suitable means of disposal, or into a rainwater storage receptacle having an overflow pipe discharging into such a drain or surface water drain:".

15. In regulation M23 for paragraph (1) there shall be substituted the following paragraph—

"(1) Every soil pipe, soil-waste pipe, waste pipe or ventilating pipe serving a sanitary appliance situated within a building of more than four storeys in occupancy sub-group A2 shall be within the area bounded by the external walls of the building.".

16. In regulation M24—

(i) for paragraph (1) there shall be substituted the following paragraph:—

"(1) This regulation shall apply to every building of occupancy sub-group A3 or A4 or of occupancy group B or C and to every building of occupancy sub-group D2 used as a filling station.";

(ii) in paragraph (2)—

(*a*) after the words "likely to" there shall be inserted the words "inhabit or";

(*b*) in the proviso, in sub-paragraph (ii)(A) at the beginning there shall be inserted the words "in relation to persons employed in the building,";

(*c*) after sub-paragraph (ii)(C) of the proviso there shall be inserted the following—

", or,

(D) separate accommodation for persons of each sex in individual chalets or bothies within which sanitary conveniences are provided for the sole use of the occupants thereof.".

17. In regulation N4(1)—

(i) in sub-paragraph (*b*) after the word "adequate" there shall be inserted the words "making and";

(ii) in sub-paragraph (*c*) for the words "the fusible metal without danger" there shall be substituted the words "fuse elements without danger, and";

(iii) after sub-paragraph (*c*) there shall be inserted the following sub-paragraph—

"(*d*) in the case of a building in occupancy sub-group A1 or A2, are accessible only from within the building.".

18. For regulation N12 there shall be substituted the following regulation—

**Electrical switches, fittings and appliances in proximity to fixed baths or showers*

N12.—(1) Every electrical switch, fitting and fixed appliance situated within or in proximity to a bathroom or other room containing a fixed bath or shower shall comply with the following provisions of this regulation and, except as provided in paragraphs (5) and (6) below, no provision shall be made for the connection of a portable appliance.

(2) Any part of a lamp-holder within a distance of 2·5 metres from a bath or a shower cubicle shall be constructed of, or shrouded in, insulating material, or be fitted with a protective shield.

(3) Any switch or other means of electrical control or adjustment inside or outside the room, except an insulating cord connected to a cord-operated switch, shall be so situated as to be normally inaccessible to a person using a bath or shower.

(4) Any fixed electrical appliance having a heating element which can be touched shall be so situated as to be out of the reach of a person using a bath or shower.

(5) Any shaver supply unit in a bathroom or within 2·5 metres of a shower cubicle in a room other than a bathroom shall incorporate a double-wound safety isolating transformer with the secondary circuit adequately isolated from the mains supply and earth and containing a load-limiting device making it suitable for use only with an electric dry shaver.

(6) No socket outlet shall be situated within a bathroom, and any socket outlet in any other room containing a shower shall be situated not less than 2·5 metres from the shower cubicle.

(7) Nothing in this regulation shall apply to a switch, fitting or appliance connected to a circuit having a voltage not exceeding 25 volts alternating or direct current supplied from a double-wound safety isolating transformer with the secondary circuit adequately isolated from the mains supply and earth, situated outside the room.".

19. In regulation Q14(2) for "300" there shall be substituted "275".

20. In regulation S2(5) there shall be added at the end the following proviso—

"Provided that a stairway wholly within a house in occupancy sub-group A2 shall not be required to conform to a standard more onerous than that prescribed by this Part for a private stairway.".

21. In regulation S6—

(i) after paragraph (2) there shall be inserted the following paragraph—

"(2A) Fixed seating forming part of a balcony in a building of occupancy group C or a room used for assembly purposes in a building of occupancy group B shall be guarded by a balustrade not less than 790 millimetres in height or, where the balustrade has a coping or superimposed padded rest which has an overall width of not less than 230 millimetres, not less than 750 millimetres in height.";

(ii) in paragraph (3) for the words "paragraph (2)" there shall be substituted the words "paragraphs (2) and (2A)";

(iii) in paragraph (5) for the words "paragraph (2), (3) or (4)" there shall be substituted the words "paragraph (2), (2A), (3) or (4)".

22. In Schedule 10 in head B (Specifications)—

(i) in the entry for regulations J3(1) and J6—

(*a*) in the column headed "Case dealt with or relevant conditions" in the entry opposite Specification (2), in (*c*) for the

words "tiling, battens" there shall be substituted "tiling battens";

(*b*) in Specification (2) for the words "meganewtons per gramme" there shall be substituted the words "meganewton seconds per gram";

(ii) in the Specification for regulation J4(2), in the Table heading referring to a U-value of 1·0, after "3(*c*)" there shall be inserted "4A";

(iii) in the entry for regulations J4(3) and J6—

(*a*) in Specification (1)(i) for the words "meganewtons per gramme" there shall be substituted the words "meganewton seconds per gram";

(*b*) in the column headed "Case dealt with or relevant conditions" after the entry opposite Specification (4) there shall be inserted the following entry—

"Unventilated twin leaf wall having a cavity not less than 50 millimetres wide and constructed of an outer leaf of clay, concrete, sandlime brick, dense concrete blockwork or in situ concrete, rendered or unrendered externally and an inner leaf of lightweight concrete blockwork 100 millimetres thick and weighing not more than 750 kilograms per cubic metre";

(*c*) after Specification (4) there shall be inserted the following specification—

"(4A) Internal surface finish of 12 millimetres thick lightweight plaster";

(iv) in the entry for regulation M4(2)—

(*a*) in Specification (1) at the end there shall be added—

", or

BS 4622: 1970 as read with Amendments AMD 614, October 1970 and AMD 1298, October 1973, or

BS 4772: 1971 as read with Amendments AMD 852, January 1972 and AMD 1299, October 1973.";

(*b*) after Specification (1) there shall be inserted the following specifications—

"(1A) The pipes conform to "Extra Strength" or "Super Strength" requirements of BS 65 and 540: Part 1: 1971 as read with Amendments AMD 1202, June 1973, AMD 2019, June 1976 and AMD 2273, May 1977 and are fitted with self-centering flexible mechanical joints conforming to BS 65 and 540: Part 2: 1972 as read with Amendments AMD 2020, June 1976 and AMD 2274, May 1977.

(1B) The pipes conform to BS 2760: 1973 or to BS 4660: 1973 as read with Amendment AMD 2514, April 1978, and are fitted with flexible mechanical joints and with rubber sealing rings conforming to BS 2494: 1976.";

(v) in the entry for regulation M4(3)—as to construction, support and laying—

(*a*) in the column headed "Case dealt with or relevant conditions" at the beginning there shall be inserted the words

"Drain laid in firm ground and passing through or under a building" and for the words "Drain laid in firm ground" there shall be substituted the words "Drain laid in firm ground and not passing through or under a building";

(*b*) in the column headed "Specification" there shall be inserted at the beginning the following Specification—

"(1A) The drain is laid, constructed and supported in accordance with CP 301: 1971, and—

(*a*) where the drain is of vitrified clay with flexible mechanical joints—

(i) it incorporates a flexible joint in each section of the pipeline in such a manner that one joint is within 150 millimetres of the point at which the drain enters the building;

(ii) where the top of the drain is within 150 millimetres of the underside of any oversite concrete (if provided) or permanent concrete slab, it is surrounded by not less than 100 millimetres of concrete at the top and bottom of the pipe and 150 millimetres at the sides;

(iii) in any other case, the pipe is bedded on and surrounded by a similar thickness of selected granular filling conforming to BS 882, 1201: Part 2: 1973 as read with Amendment AMD 1780, August 1975, or pea gravel of not more than 10 millimetres diameter;

(*b*) where the drain is of pitch fibre or unplasticised polyvinychloride with flexible mechanical joints—

(i) it is bedded on 100 millimetres of selected aggregate conforming to BS 882, 1201: Part 2: 1973 as read with Amendment AMD 1780, August 1975, or pea gravel of not more than 10 millimetres in diameter laid on a trench bottom of either compacted hardcore or original ground;

(ii) it is supported at the sides by not less than 150 millimetres of aggregate or pea gravel as specified in sub-paragraph (i) above and not less than 100 millimetres of cover of the same material for 100 millimetre pipes and 150 millimetres of cover for pipes of a larger diameter.";

(*c*) in Specification (2) at the end there shall be added the words "and in the case of plastics pipework in accordance with CP 312: Part 1: 1973.";

(vi) in the entry for regulations N3-N11 in the column headed "Provision of regulation deemed to be satisfied" for "N3-N11" there shall be substituted "N3-N4(1)(*c*) and N4(2)-N11";

(vii) after the entry for regulations N3-N11 there shall be inserted the following entries—

Provision of regulation deemed to be satisfied	Element of structure or fitting	Case dealt with or relevant conditions	Specification
"N12(5) — as to shaver supply unit	Shaver supply unit		The shaver supply unit conforms to BS 3052: 1958 "Electric Shaver Supply Units", as read with Amendments PD 4386, November 1961 and AMD 455, March 1970.
N12(7) — as to isolating transformer	Isolating transformer delivering not more than 25 volts		The transformer conforms to BS 3535: 1962 "Safety Isolating Transformers for Industrial and Domestic Purposes", as read with Amendment PD 5385, November 1964.".

23. After Schedule 11 there shall be added the schedule set out in Schedule 2 to these regulations.

Bruce Millan,
One of Her Majesty's Principal Secretaries of State.

New St. Andrew's House,
Edinburgh.
12th March 1979.

SCHEDULE 1 *Regulation* 12

SECTION 2: BUILDINGS OTHER THAN HOUSES AND CHALETS

Application of Section 2

J7—(1) This Section shall apply only to a building of occupancy sub-group A3 (other than a chalet) or A4 or occupancy group B, C, D or E except that it shall not apply to—

(*a*) a temporary building;

(*b*) a greenhouse which has not less than three-quarters of its total external area comprised of glass (including glazing bars) or other translucent material;

(*c*) a building the total area of all storeys of which does not exceed 30 square metres;

(*d*) a building of occupancy group D or E where the design output rating of the heat emitters installed therein does not exceed 50 watts per square metre of the floor area of the spaces served by such heat emitters;

(*e*) a building of occupancy sub-group A3 or A4 or occupancy group B or C where the design output rating of the heat emitters installed therein does not exceed 25 watts per square metre of the floor area of the spaces served by such heat emitters:

Provided that where a building as a whole would not fall within sub-paragraph (*d*) or (*e*) above but part thereof would do so if treated separately for the purposes of either of these sub-paragraphs this Section shall not apply to that part of the building.

(2) The provisions of regulation J9 shall not be subject to specification in a notice served under section 11 of the Act (which enables local authorities to require existing buildings to conform to these regulations) in so far as they relate to walls and floors:

Provided that nothing shall prevent account being taken of the form of construction of the walls or floors of a building as provided in regulation J9(2) and (4), in determining whether a roof of a building complies with a provision of regulation J9.

Interpretation of Section 2

J8—(1) In this Section—

"display window" means a window to an area of a building where merchandise is displayed and where there is a fixed screen which is either unglazed or wholly or partly glazed between the display window and the remainder of the building, the said screen extending from the floor to the ceiling of the display area;

"door" includes a roller shutter;

"opening" includes a window opening, a roof-light opening and any opening for a door, ventilator or other purpose;

"permanent vent" means an opening or duct which communicates with the external air and is designed to allow the passage of air at all times;

"roof-light opening" means any structural opening in a roof which is provided for a hinged, sliding or fixed light irrespective of its size or function;

"surface heat transfer coefficient", in relation to a surface, means the rate of heat transfer in watts between each square metre of the surface and the ambient air when there is a difference in temperature of one degree Celsius between the surface and the ambient air;

"surface resistance" means the reciprocal of the surface heat transfer coefficient;

"thermal transmittance coefficient", in relation to any structure, being a roof, wall or floor, means the rate of heat transfer in watts through one square metre of the structure when there is a difference in temperature of one degree Celsius between the air on the internal and external surfaces of the structure;

"U-value" means the thermal transmittance coefficient;

"ventilated space" means any space which is enclosed by structure which is

exposed in part to the external air and is ventilated by means of permanent vents having an aggregate area exceeding 30 per cent of the wall boundary area;

"wall" includes any internal or external surface finishes thereon;

"wall boundary area" means the total superficial area of all walling, including any opening, bounding a ventilated space;

"window opening" means any structural opening in a wall which is provided for a window or other glazed area irrespective of its size and function or for a hinged or sliding door or panel having a glazed area of 2 square metres or more.

(2) For the purposes of this Section—

(*a*) any part of a roof which has a pitch of 70 degrees or more shall be treated as an external wall;

(*b*) any floor which is so situated that its upper surface is exposed to the external air shall be treated as a roof in relation to that part of the building beneath it;

(*c*) in determining the thermal transmittance coefficient of a roof, wall or floor—

(i) the sum of the surface resistances of—

(A) the external surface of a roof, and

(B) the internal surface of the roof, or the lower surface of the ceiling of the storey immediately below the roof,

shall be taken as 0·15;

(ii) the sum of the external and internal surface resistances of a wall shall be taken as 0·18, and

(iii) the sum of the upper and lower surface resistances of a floor shall be taken as 0·24;

(*d*) the thermal transmittance coefficient of any window opening or roof-light opening shall be assumed to be 5·7 if it is single-glazed, 2·8 if it is double-glazed and 2·0 if it is triple-glazed irrespective of whether the light-transmitting material is glass or not, and

(*e*) any reference to a part of a wall, floor or roof shall mean a part comprising a section of the complete structure of the wall, floor or roof including any internal or external surface finishes thereon.

(3) For the purposes of calculating the proportion of window and roof-light openings in a wall or roof—

(*a*) the area of a window opening or roof-light opening shall be taken to be the area of the inner surface of the element fitted in that opening measured in the general plane or planes of that element;

(*b*) the area of a wall shall be taken to be the area of the inner face of that wall (including any opening therein) measured between finished floor and ceiling levels and between finished surfaces of flanking walls or partitions, and

(*c*) the area of a roof shall be taken to be the area of the inner surface of that roof (including any opening therein) measured between flanking walls or partitions.

Walls, Floors and Roofs

J9—(1) Subject to paragraph (2) below, every part of a wall, floor or roof (excluding any opening therein) which forms part of a building to which this Section applies and which is described in Table 1 to this regulation shall—

(*a*) have a thermal transmittance coefficient not exceeding the appropriate value specified in that Table, or

(*b*) be constructed in accordance with an appropriate specification in Part II or Part III of Schedule 12.

(2) Nothing in paragraph (1) above shall prevent any wall, floor or roof described therein from having a thermal transmittance coefficient in excess of the said appropriate value if those elements are so constructed that the calculated total rate of heat loss

in watts per degree Celsius through all of them does not exceed that which would have obtained had the thermal transmittance coefficient of every part of each of those elements complied with paragraph (1).

(3) Subject to paragraph (4) below the total area of window openings and the total area of roof-light openings in those walls and roofs of a building for which a maximum thermal transmittance coefficient is specified in paragraph (1) above shall not exceed the appropriate percentage of the total areas of those walls and roofs respectively which is specified in Table 2 to this regulation:

Provided that in the case of a shop no account shall be taken of the area of any display window opening situated at access level and of the area of that part of the wall of the storey in which it is comprised.

(4) Nothing in paragraph (3) above shall prevent there being provided a greater area of window openings or of roof-light openings than is permitted under that paragraph if the calculated total rate of heat loss in watts per degree Celsius through all those openings does not exceed that which would have obtained had all those openings been single-glazed and the total area thereof complied with paragraph (3).

TABLE 1 TO REGULATION J9

MAXIMUM U-VALUES OF WALLS, FLOORS AND ROOFS

ELEMENT OF BUILDING	MAXIMUM U-VALUE OF EVERY PART OF ELEMENT HAVING REGARD TO THE OCCUPANCY GROUP OR SUB-GROUP OF A BUILDING	
	Occupancy Sub-Groups A3 and A4 and Occupancy Groups B and C	Occupancy Groups D and E
(1)	(2)	(3)
External wall (other than any such wall enclosing a ventilated space) Internal wall exposed to a ventilated space Floor having its under surface exposed to the external air or to a ventilated space Roof (other than a roof over a ventilated space) including any ceiling to the roof or any roof space and any ceiling below that space	0·6	0·7

TABLE 2 TO REGULATION J9

MAXIMUM AREA OF WINDOW OPENINGS AND ROOF-LIGHT OPENINGS, HAVING REGARD TO THE OCCUPANCY GROUP OR SUB-GROUP OF THE BUILDING, EXPRESSED AS A PERCENTAGE OF THE TOTAL AREAS OF THE WALLS AND ROOFS RESPECTIVELY FOR WHICH A MAXIMUM U-VALUE IS SPECIFIED IN REGULATION J9(1)

Type of Openings (1)	Occupancy Sub-Groups A3 and A4 (2)	Occupancy Groups B and C (3)	Occupancy Groups D and E (4)
Window Openings	25	35	15
Roof-light Openings	20	20	20

Regulation 23 SCHEDULE 2

Regulation J9 (1) SCHEDULE 12

SPECIFICATIONS FOR RESISTANCE TO THE TRANSMISSION OF HEAT IN BUILDINGS TO WHICH SECTION 2 OF PART J OF THE REGULATIONS APPLY

PART I: INTERPRETATION OF SCHEDULE 12

1. In this Schedule, "thermal conductivity"—

(*a*) means the rate of heat transfer in watts through one square metre of a uniform homogeneous material of one metre thickness when a temperature difference of one degree Celsius is established between its surfaces and is expressed in watts per metre per degree Celsius (W/m°C), and

(*b*) in the case of any material containing cement, refers exclusively to the thermal conductivity of that material having a moisture content of three per cent by volume.

2. The following abbreviations and symbols used in this Schedule have the meanings respectively assigned to them—

Abbreviation or symbol	*Definition*
°C	degree Celsius
m	metre
m^3	cubic metre
mm	millimetre
kg	kilogram
W	watt

3. In column (1) of each table in Parts II and III, any reference to an insulating material shall be construed as a reference to any one of the materials described in the Table to this paragraph.

TABLE TO PARAGRAPH 3: INSULATING MATERIALS

Type (1)	Description (2)
A	Wood wool slab (density not exceeding 500 kg/m^3)
B	Fibre building board: insulating board or bitumen impregnated insulating board
C	Cellular glass
D	Mineral fibre batt or matt (glass or rock) Mineral fibre loose fill (glass or rock) Urea formaldehyde foam cavity fill
E	Mineral fibre slab (glass or rock) Expanded polystyrene insulating board (density not exceeding 25kg/m^3)
F	Polyurethane, or phenol formaldehyde, core to laminated board

4. If, in addition to the component parts described in column (1) of any table in Part II or III, the construction of a wall, floor or roof includes any one or more of the surface finishes described in column (1) of the Table to this paragraph, the minimum thickness of insulating material specified in column (5) of the relevant table in Part II or III (or, if there are no entries in that column, the minimum thickness specified in column (2) of that table) shall be taken to be reduced by the appropriate percentage or the sum of the appropriate percentages in column (2) of the Table to this paragraph.

TABLE TO PARAGRAPH 4: REDUCTION OF MINIMUM THICKNESS

Description of surface finish (1)	Percentage reduction (2)
A. Internal finish	
1. Dense plaster	2
2. Lightweight plaster	6
3. Plasterboard on dabs, strips or battens	20
4. Insulating plasterboard on battens	30
B. External finish	
Rendering	2

5. If the density or thermal conductivity of a material is required to conform to a limit specified in column (3) or (4) in any table in Part II or III and the value is intermediate between two adjacent values specified in the relevant column, the appropriate minimum thickness of insulating material, for the purposes of column (5) of that table (or, if there are no entries in that column, the minimum thickness specified in column (2) of that table) may be determined by linear interpolation.

PART II: SPECIFICATIONS RELATING TO BUILDINGS OF OCCUPANCY SUB-GROUP A3 OR A4 OR OCCUPANCY GROUP B OR C

TABLE 1: WALLS

(1) Description of wall	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
1. Any wall not precisely specified in this Table—									
(*a*) of solid or composite construction comprising insulating material; or				126	89	74	59	52	37
(*b*) of composite construction comprising insulating material and enclosing an airspace not less than 20mm wide,				111	79	65	52	46	33
with a weatherproof exterior									
2. A cavity wall comprising an outer leaf of brickwork and an inner leaf either of brickwork or of solid concrete blocks or slabs, each leaf conforming to the limit in column (2); and									
(*a*) the cavity is completely filled by insulating material; and									
(i) the inner leaf is of brickwork; or	100			—	—	58	47	41	—
(ii) the inner leaf is of concrete blocks or slabs conforming to the limit in column (3) or (4); or	100	2300	1·63	—	—	65	52	46	—
	100	1700	0·76	—	—	62	49	43	—
	100	1400	0·51	—	—	58	47	41	—
	100	1100	0·34	—	—	54	43	38	—
	100	750	0·22	—	—	46	36	32	—
(*b*) the cavity is partly filled by insulating material attached to either of the cavity faces, with an airspace not less than 20mm wide, or the insulating material is attached to the room face of the inner leaf; and									
(i) the inner leaf is of brickwork; or	100			—	—	50	40	35	—
(ii) the inner leaf is of concrete blocks or slabs conforming to the limit in column (3) or (4); or	100	2300	1·63	—	—	56	45	39	—
	100	1700	0·76	—	—	53	42	37	—
	100	1400	0·51	—	—	50	40	35	—
	100	1100	0·34	—	—	45	36	31	—
	100	750	0·22	—	—	37	29	27	—

TABLE 1: WALLS—*cont.*

(1) Description of wall	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
(*c*) the insulating material is separated from the room face of the inner leaf by an airspace not less than 20mm wide; and									
(i) the inner leaf is of brickwork; or	100			69	49	41	32	28	20
(ii) the inner leaf is of concrete blocks or slabs conforming to the limit in column (3) or (4)	100	2300	1·63	80	57	47	40	33	24
	100	1700	0·76	74	53	44	35	31	22
	100	1400	0·51	69	49	41	32	28	20
	100	1100	0·34	61	43	36	29	25	18
	100	750	0·22	47	33	28	22	19	14
3. A solid wall, rendered externally, consisting of solid cast concrete or solid concrete blocks or slabs and conforming to the limit in column (2) and to the limit in column (3) or (4); and									
(*a*) insulating material is attached directly to the inner face; or	200	2300	1·63	117	83	69	55	48	34
	200	1700	0·76	106	75	62	50	43	31
	200	1400	0·51	97	68	57	45	40	28
	200	1100	0·34	82	58	48	38	33	24
	200	750	0·22	56	39	33	26	23	16
(*b*) insulating material is separated from the inner face by an airspace not less than 20mm wide	200	2300	1·63	102	72	60	48	42	30
	200	1700	0·76	91	64	53	43	37	27
	200	1400	0·51	81	57	48	38	33	24
	200	1100	0·34	66	47	39	31	27	19
	200	750	0·22	40	28	24	19	17	12
4. A wall, rendered externally, of solid cast concrete or solid concrete blocks or slabs conforming to the limit in column (3) or (4)—									

(*a*) in a single leaf conforming to the limit in column (2); or	848 565 357	1400 1100 750	0·51 0·34 0·22						
(*b*) in two leaves of similar thickness and composition separated by a cavity not less than 20mm wide, the two leaves together conforming to the limit in column (2)	706 470 301	1400 1100 750	0·51 0·34 0·22						
5. A composite wall containing a cavity not less than 20mm wide and comprising—									
(*a*) an external cladding of metal, glass or plastics sheet; and									
(i) insulating material and an internal lining of gypsum plasterboard secured to studding; or				—	—	69	55	48	34
(ii) an inner leaf of solid cast concrete or solid concrete blocks or slabs conforming to the limit in column (2) and to the limit in column (3) or (4); or	667 444 288	1400 1100 750	0·51 0·34 0·22						
(*b*) an external veneer of single-leaf brickwork or of tiles or weatherboarding secured on battens with a background of breather paper and counter-battens sufficient to preserve the required cavity; and									
(i) insulating material and an internal lining of gypsum plasterboard secured to studding; or				—	—	63	50	44	31
(ii) an inner leaf of solid cast concrete or solid concrete blocks or slabs conforming to the limit in column (2) and to the limit in column (3) or (4)	621 414 268	1400 1100 750	0·51 0·34 0·22						

PART II: SPECIFICATIONS RELATING TO BUILDINGS OF OCCUPANCY SUB-GROUP A3 OR A4 OR OCCUPANCY GROUP B OR C—*cont.*

TABLE 2: FLOORS EXPOSED TO THE EXTERNAL AIR

(1) Description of floor	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
1. Floor of slabs or hollow beams of dense concrete conforming to the limit in column (2) with—									
(*a*) insulating material in direct contact with the upper or lower surface of the floor; or	100			—	—	68	54	47	34
(*b*) insulating material separated by an airspace not less than 20mm wide from the upper or lower surface of the floor	100			—	—	57	46	40	29
2. Floor of slabs or beams of autoclaved aerated concrete conforming to the limit in column (2) and to the limit in column (3) or (4) with—									
(*a*) no additional insulation; or	250	600	0·18						
(*b*) insulating material in direct contact with the upper or lower surface of the floor; or	200	600	0·18	27	19	16	13	11	8
	150	600	0·18	50	36	30	24	21	15
	100	600	0·18	74	52	44	35	31	22
(*c*) insulating material separated by an airspace not less than 20mm wide from the upper or lower surface of the floor	200	600	0·18	9	6	5	4	4	3
	150	600	0·18	32	23	19	15	13	10
	100	600	0·18	56	40	33	26	23	16

PART II: SPECIFICATIONS RELATING TO BUILDINGS OF OCCUPANCY SUB-GROUP A3 OR A4 OR OCCUPANCY GROUP B OR C—*cont.*

TABLE 3: ROOFS

(1) Description of roof	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
1. Any roof not precisely specified in this Table which contains insulating material, including sandwich construction of mineral fibre with requisite spacers between asbestos-cement corrugated sheets				—	—	—	60	50	35
2. Pitched roof of slates or tiles on sarking felt or sarking paper (or a pitched or flat roof of any waterproof material on boarding not less than 16mm thick) having a ventilated space between the underside of the roof and a separate ceiling to the room below, with—									
(*a*) insulating material in direct contact with that ceiling; or				—	—	—	46	38	28
(*b*) insulating material separated from either surface of the ceiling by an airspace not less than 20mm wide				—	—	—	—	34	24
3. Pitched or flat roof with a waterproof covering bonded to a layer of insulating material on top of boarding not less than 16mm thick				—	81	68	—	46	—
4. Pitched or flat roof of asbestos-cement or metal decking with a waterproof covering laid on boarding on top of the decking, the boarding conforming to the limits in columns (2) and (4), with—									
(*a*) insulating material in contact with the waterproof covering or the soffit of the assembly; or	12·5		0·05	—	—	—	—	32	23
(*b*) insulating material separated from the soffit by an airspace not less than 20mm wide	12·5		0·05	—	—	—	—	25	18

TABLE 3: ROOFS—*cont.*

(1) Description of roof	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
5. Pitched or flat weatherproofed decking of wood wool slabs of density not exceeding 500 kg/m³ and conforming to the relevant limit in column (2) with—									
(*a*) insulating material in contact with the roof covering or the upper surface or soffit of the decking; or	50			—	—	—	—	31	20
	76			—	—	—	—	25	16
(*b*) insulating material separated from either surface of the decking by an airspace not less than 20mm wide	50			—	—	—	—	21	13
	76			—	—	—	—	15	10
6. Pitched or flat roof of dense concrete hollow or solid beams or slabs either unscreeded or screeded to an average thickness of not less than 40mm with material conforming to the limit in column (3) or (4) with—									
(*a*) insulating material in contact with the roof covering or the upper surface or soffit of the concrete members; or	Unscreeded			—	—	70	—	49	35
	Screeded	1400	0·51	—	—	66	—	46	33
	Screeded	1100	0·34	—	—	64	—	45	32
	Screeded	750	0·22	—	—	60	—	43	30
	Screeded	400	0·15	—	—	57	—	40	28
(*b*) insulating material separated from the soffit of the concrete members by an airspace not less than 20mm wide	Unscreeded			—	—	—	—	44	31
	Screeded	1400	0·51	—	—	—	—	41	29
	Screeded	1100	0·34	—	—	—	—	39	28
	Screeded	750	0·22	—	—	—	—	37	27
	Screeded	400	0·15	—	—	—	—	34	25
7. Pitched or flat roof of slabs or beams of autoclaved aerated concrete conforming to the relevant limit in column (2) and to the limit in column (3) or (4) with insulating material in contact with the roof covering or the upper surface or soffit of the concrete members	250	600	0·18	11	8	6	—	4	3
	200	600	0·18	35	24	20	—	14	10
	150	600	0·18	58	41	34	—	24	17
	100	600	0·18	—	—	48	—	34	24

PART III: SPECIFICATIONS RELATING TO BUILDINGS OF OCCUPANCY GROUP D OR E

TABLE 4: WALLS

(1) Description of wall	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
1. Any wall not precisely specified in this Table—									
(*a*) of solid or composite construction comprising insulating material; or				106	75	62	50	44	31
(*b*) of composite construction comprising insulating material and enclosing an airspace not less than 20mm wide,				91	64	53	43	37	27
with a weatherproof exterior.									
2. A cavity wall comprising an outer leaf of brickwork and an inner leaf either of brickwork or of solid concrete blocks or slabs each leaf conforming to the limit in column (2); and									
(*a*) the cavity is completely filled by insulating material; and									
(i) the inner leaf is of brickwork; or	100			—	—	47	37	33	—
(ii) the inner leaf is of concrete blocks or slabs conforming to the limit in column (3) or (4); or	100	2300	1·63	—	—	53	43	37	—
	100	1700	0·76	—	—	50	40	35	—
	100	1400	0·51	—	—	47	37	33	—
	100	1100	0·34	—	—	42	33	29	—
	100	750	0·22	—	—	34	27	24	—
(*b*) the cavity is partly filled by insulating material attached to either of the cavity faces, with an airspace not less than 20mm wide, or the insulating material is attached to the room face of the inner leaf; and									
(i) the inner leaf is of brickwork; or	100			—	—	38	30	26	—
(ii) the inner leaf is of concrete blocks or slabs conforming to the limit in column (3) or (4); or	100	2300	1·63	—	—	44	35	31	—
	100	1700	0·76	—	—	41	33	29	—
	100	1400	0·51	—	—	38	30	26	—
	100	1100	0·34	—	—	33	26	23	—
	100	750	0·22	—	—	25	20	17	—

TABLE 4: WALLS—*cont.*

(1) Description of wall	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
(*c*) the insulating material is separated from the room face of the inner leaf by an airspace not less than 20mm wide; and									
(i) the inner leaf is of brickwork; or	100			49	34	29	23	20	14
(ii) the inner leaf is of concrete blocks or slabs conforming to the limit in column (3) or (4)	100	2300	1·63	60	42	35	28	25	18
	100	1700	0·76	54	38	32	25	22	16
	100	1400	0·51	49	34	29	23	20	14
	100	1100	0·34	40	28	24	19	17	12
	100	750	0·22	27	19	16	13	11	8
3. A solid wall, rendered externally, consisting of solid cast concrete or solid concrete blocks or slabs and conforming to the limit in column (2) and to the limit in column (3) or (4); and									
(*a*) insulating material is attached directly to the inner face; or	200	2300	1·63	97	68	56	45	40	28
	200	1700	0·76	85	61	51	40	35	25
	200	1400	0·51	76	54	45	36	31	22
	200	1100	0·34	61	43	36	29	25	18
	200	750	0·22	35	25	21	17	14	10
(*b*) insulating material is separated from the inner face by an airspace not less than 20mm wide	200	2300	1·63	81	57	48	38	33	24
	200	1700	0·76	71	50	42	33	29	21
	200	1400	0·51	61	43	36	29	25	18
	200	1100	0·34	46	33	27	22	19	14
	200	750	0·22	20	14	12	9	8	6

4. A wall, rendered externally, of solid cast concrete or solid concrete blocks or slabs conforming to the limit in column (3) or (4)—										
(*a*) in a single leaf conforming to the limit in column (2); or	712 475 300	1400 1100 750	0·51 0·34 0·22							
(*b*) in two leaves of similar thickness and composition, separated by a cavity not less than 20mm wide, the two leaves together conforming to the limit in column (2)	577 385 250	1400 1100 750	0·51 0·34 0·22							
5. A composite wall containing a cavity not less than 20mm wide and comprising—										
(*a*) an external cladding of metal, glass or plastics sheet; and										
(i) insulating material and an internal lining of gypsum plasterboard secured to studding; or				—	—	54	43	38	27	
(ii) an inner leaf of solid cast concrete or solid concrete blocks or slabs conforming to the limit in column (2) and to the limit in column (3) or (4); or	546 364 235	1400 1100 750	0·51 0·34 0·22							
(*b*) an external veneer of single-leaf brickwork or of tiles or weatherboarding secured on battens with a background of breather paper and counter-battens sufficient to preserve the required cavity; and										
(i) insulating material and an internal lining of gypsum plasterboard secured to studding; or				—	—	48	38	34	24	
(ii) an inner leaf of solid cast concrete or solid concrete blocks or slabs conforming to the limit in column (2) and to the limit in column (3) or (4)	500 333 216	1400 1100 750	0·51 0·34 0·22							

TABLE 5: FLOORS EXPOSED TO THE EXTERNAL AIR

(1) Description of floor	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
1. Floor of slabs or hollow beams of dense concrete conforming to the limit in column (2) with—									
(*a*) insulating material in direct contact with the upper or lower surface of the floor; or	100			—	—	56	45	39	28
(*b*) insulating material separated by an airspace not less than 20mm wide from the upper or lower surface of the floor	100			—	—	46	36	32	23
2. Floor of slabs or beams of autoclaved aerated concrete conforming to the limit in column (2) and to the limit in column (3) or (4) with—									
(*a*) no additional insulation; or	250	600	0·18						
(*b*) insulating material in direct contact with the upper or lower surface of the floor; or	200	600	0·18	7	5	4	3	3	2
	150	600	0·18	30	21	18	14	12	9
	100	600	0·18	54	38	32	25	22	16
(*c*) insulating material separated by an airspace not less than 20mm wide from the upper or lower surface of the floor	150	600	0·18	12	9	7	6	5	4
	100	600	0·18	36	25	21	17	15	11

PART III: SPECIFICATIONS RELATING TO BUILDINGS OF OCCUPANCY GROUP D OR E—*cont.*

TABLE 6: ROOFS

(1) Description of roof	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
1. Any roof not precisely specified in this Table which contains insulating material, including sandwich construction of mineral fibre with requisite spacers between asbestos-cement corrugated sheets				—	—	—	50	42	29
2. Pitched roof of slates or tiles on sarking felt or sarking paper (or a pitched or flat roof of any waterproof material on boarding not less than 16mm thick) having a ventilated space between the underside of the roof and a separate ceiling to the room below, with—									
(*a*) insulating material in direct contact with that ceiling; or				—	—	—	36	30	22
(*b*) insulating material separated from either surface of the ceiling by an airspace not less than 20mm wide				—	—	—	—	26	19
3. Pitched or flat roof with a waterproof covering bonded to a layer of insulating material on top of boarding not less than 16mm thick				—	67	56	—	39	—
4. Pitched or flat roof of asbestos-cement or metal decking with a waterproof covering laid on boarding on top of the decking, the boarding conforming to the limits in columns (2) and (4), with—									
(*a*) insulating material in contact with the waterproof covering or the soffit of the assembly; or	12·5		0·05	—	—	—	—	24	17
(*b*) insulating material separated from the soffit by an airspace not less than 20mm wide	12·5		0·05	—	—	—	—	17	9

TABLE 6: ROOFS—*cont.*

(1) Description of roof	(2) Minimum thickness (in mm)	(3) Maximum density (in kg/m³)	(4) Maximum thermal conductivity (in W/m°C)	(5) Minimum thickness (in mm) of insulating material referred to in column (1) according to type					
				A	B	C	D	E	F
5. Pitched or flat weatherproofed decking of wood wool slabs of density not exceeding 500 kg/m³ and conforming to the relevant limit in column (2) with—									
(*a*) insulating material in contact with the roof covering or the upper surface or soffit of the decking; or	50			—	—	—	—	22	15
	76			—	—	—	—	16	10
(*b*) insulating material separated from either surface of the decking by an airspace not less than 20mm wide	50			—	—	—	—	13	8
	76			—	—	—	—	6	4
6. Pitched or flat roof of dense concrete hollow or solid beams or slabs either unscreeded or screeded to an average thickness of not less than 40mm with material conforming to the limit in column (3) or (4) with—									
(*a*) insulating material in contact with the roof covering or the upper surface or soffit of the concrete members; or	Unscreeded			—	—	58	—	41	29
	Screeded	1400	0·51	—	—	54	—	38	27
	Screeded	1100	0·34	—	—	52	—	37	26
	Screeded	750	0·22	—	—	49	—	35	25
	Screeded	400	0·15	—	—	45	—	31	22
(*b*) insulating material separated from the soffit of the concrete members by an airspace not less than 20mm wide	Unscreeded			—	—	—	—	35	25
	Screeded	1400	0·51	—	—	—	—	33	23
	Screeded	1100	0·34	—	—	—	—	31	22
	Screeded	750	0·22	71	—	—	—	29	21
	Screeded	400	0·15	63	—	—	—	26	19

7. Pitched or flat roof of slabs or beams of autoclaved aerated concrete conforming to the relevant limit in column (2) and to the limit in column (3) or (4) with—										
(*a*) no additional insulation; or	250	600	0·18							
(*b*) insulating material in contact with the roof covering or the upper surface or soffit of the concrete members	200	600	0·18	14	10	8	—	6	4	
	150	600	0·18	38	27	22	—	16	11	
	100	600	0·18	62	43	36	—	25	18	

EXPLANATORY NOTE

(This Note is not part of the Regulations.)

These Regulations amend the Building Standards (Scotland) Regulations 1971 to 1975. They come into operation on 1st June 1979 but do not apply to construction work or change of use where application for the relative warrant was made before that date.

These Regulations introduce provisions made for the purpose of furthering the conservation of fuel and power. The provisions are contained in a new Section 2 of Part J (Resistance to the transmittance of heat) and Schedule 12 (introduced by regulations 12 and 23 respectively). They apply, subject to certain exceptions, to all buildings other than those consisting of houses or chalets, the thermal insulation of which is already controlled by the existing Part J along with that of certain other residential buildings. The new Section 2 of Part J prescribes thermal insulation standards for walls, roofs and exposed floors, with limitations on the total area of window and roof-light openings. Examples are given (in Schedule 12) of wall, roof and floor specifications which meet the prescribed standards.

A number of other limited changes to the Building Standards (Scotland) Regulations 1971 to 1975 are made by these Regulations. The principal changes are as follows:—

(*a*) in Part L (Daylighting and space about houses), modification of the definition of an external obstruction to exclude trees;

(*b*) in Part M (Drainage and sanitary appliances), clarification of requirements on the disposal of rainwater and provision of sanitary conveniences in buildings and modification of the restriction on the placing of soil, waste and ventilating pipes outside the external walls of dwelling houses so that such pipes may be placed inside or outside if the building does not exceed four storeys in height, and

(*c*) in Part N (Electrical installations), the introduction of a requirement that in dwelling houses, fuses, etc. must be accessible only from within the building and revision of the requirements of regulation N12 on electrical switches, fittings and appliances in proximity to fixed baths or showers principally to permit greater flexibility while maintaining safety standards.

SI 1979/310
ISBN 0-11-093310-9

