



SCOTTISH EXECUTIVE

Development Department

Building Regulation Note 1/2003
BUILDING STANDARDS (SCOTLAND) REGULATIONS 1990
(AS AMENDED)

Part J of the Technical Standards as applied to windows, doors and rooflights to alterations, extensions and replacements in existing dwellings

Distribution List enclosed

Our ref: QTD 1/5
21 February 2003

Dear Sir or Madam

Enclosed for your information is a copy of Building Regulation Note 1/2003.

On 1 March 2003, the full effect of the elemental U-value changes in the Sixth Amendment to the Technical Standards will apply. The main purpose of this Note is to provide additional guidance on this subject to the glass and glazing industry, building contractors, local authorities, surveyors and designers and specifiers in general.

Any enquiries regarding this Note should, in the first instance, be directed to:

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Yours faithfully

A handwritten signature in black ink, appearing to read 'DR J P Cornish', with a long horizontal stroke extending to the right.

DR J P CORNISH
Head of Building Standards

BUILDING REGULATION NOTE

Note No 1/2003

PART J OF THE TECHNICAL STANDARDS AS APPLIED TO WINDOWS, DOORS AND ROOFLIGHTS TO ALTERATIONS, EXTENSIONS AND REPLACEMENTS IN EXISTING DWELLINGS.

Introduction

1. Class Relaxation Direction 140 expires at the end of this month. On 1 March 2003 the full effect of the elemental U-value changes in the Sixth Amendment to the Technical Standards for compliance with the Building Standards (Scotland) Regulations 1990 will apply. The main purpose of this Building Regulation Note is to provide additional guidance on this subject to the glass and glazing industry, building contractors, local authorities, surveyors and designers and specifiers in general. Paragraphs 11, 12 and 13 of this Note give guidance on some miscellaneous technical glazing issues.

Public awareness of changes

2. For the purpose of making the general public aware of these changes, there is a page at the back of this document entitled "Energy-efficiency of replacement windows". You are invited to photocopy that page and use it as an information handout for general distribution. **(Note:- If you do photocopy the page, please note that this document is part of a Scottish Executive publication and should not be amended or re-presented in any way).**

Transitional provisions

3. The expiry of the Class Relaxation Direction will have the same effect as if new Technical Standards were to be introduced for glazing work on existing dwellings. In view of this, we have been requested to give guidance on transitional arrangements for replacement windows, doors and rooflights and for this, the following is recommended:
 - Class Relaxation Direction 140 applies to installations where contracts between the customer and the installer were signed before 1 March 2003; and
 - the work on these contracts should then commence before 1 May 2003; and
 - the work on these contracts should be completed by 30 June 2003; however
 - installation contracts signed on or after 1 March 2003 will need to be designed and built to the more demanding (lower) U-values (see paragraph 4 below).
4. It should be stressed that this is not a postponement of the Technical Standards requirements. It is purely a mechanism that will allow existing glazing contracts to be met, whilst attempting to achieve a seamless shift to glazing of improved performance.
5. For installations that form the subject of a building warrant to alter or extend a dwelling, the date that the building warrant was lodged will determine whether or not the Class Relaxation applies. Such applications lodged with local authority building control on 1 March 2003 or a later date will be subject to the full effect of the Sixth Amendment to the Technical Standards.

Glazing and energy-efficient boilers

6. Most of the existing dwellings will have heating systems that are not particularly energy efficient, in which case the elemental U-values of the new doors windows and rooflights will need to be:
 - 1.8 for those with plastic or timber frames
 - 2.0 for those with metal frames
7. Some dwellings may be fitted with energy-efficient boilers that have SEDBUK ratings which are equal to or exceed the value in the table below:

Minimum boiler SEDBUK which allows less demanding (higher) U-values to be used	
Central heating system fuel and boiler type	Minimum SEDBUK (%)
Mains natural gas (all boiler types)	78
LPG (all boiler types)	80
Oil (combination boilers)	82
Oil (all other types of boilers)	85

SEDBUK is a measure of energy efficiency for domestic boilers and is fully defined in *“The Government’s Standard Assessment Procedure for Energy Rating of Dwellings” 2001 edition (SAP 2001)*.

8. The ratings in the table above enable the following less demanding (higher) U-values to be adopted for windows, doors and rooflights in dwellings:
 - 2.0 for those with plastic or timber frames
 - 2.2 for those with metal frames
9. This energy efficiency trade-off should be allowed to take place where appropriate. The responsibility to check the boiler and establish the SEDBUK, however, should not rest with the glazing installer. We suggest that if the customer wishes to make use of this trade-off, they should confirm in writing the following to the glazing installer:
 - The make of the boiler; and
 - The fuel and boiler type; and
 - The SEDBUK
 The glazing installer can then check the rating the customer supplies against the table in this Note.
10. If the customer cannot establish the information listed above for him or herself, the heating engineer who either installed the boiler or who services the boiler may be able to assist. In the absence of such information being provided by the customer, the glazing installer should design and install to the more demanding (lower) U-values.

Roof window and rooflight

11. A roof window can be considered to be a rooflight when using Part J. For the purposes of establishing thermal transmittance however, roof windows can be assessed in the vertical plane similar to a traditional window in an external wall. This will enable both BS EN ISO 10077-1:2000 and prEN ISO 10077-2:2000 to be used.

Window and door system U-values – provision of certified data

12. Tables A1, A2 and A3 of Appendix A to Part J of the Technical Standards give some indicative U-values for windows. These tables have a cautious approach as far as the design of windows, doors and rooflights is concerned. The Glass and Glazing Federation (GGF) Data Sheet 2.2 describes alternative methods of assessing the thermal performance of such elements. It is acceptable to use this Data Sheet as an alternative approach. This is consistent with the guidance given in the Building Research Establishment publication “*Conventions for U-value calculations*” (BR 443).

Trade-off between windows, doors and rooflights of different U-values

13. Appendix E in Part J demonstrates the method for trading off the U-values for individual windows, doors and rooflights. This ensures that the average for the entire installation does not exceed 1.8 W/m₂K for those with wood or plastic frames or 2.0 W/m₂K if they have metal frames. Where a mixture of framing materials is proposed, such a trade-off can only occur between windows, doors and rooflights of the same frame category. i.e., timber and plastic frames being one category and metal being the second category.

Further Information

14. Current Building Regulation Notes, Technical Standards and Class Relaxation Directions may be found on the Scottish Executive Building Standards Division website at – www.scotland.gov.uk/development/bc
15. GGF Data Sheet 2.2 can be obtained from –
The Glass and Glazing Federation Publications Department
44-48 Borough High Street
London
SE1 1XB
Telephone: 020 7403 7177
Fax: 020 7357 7458
www.ggf.org.uk
16. SAP 2001 can be found at – www.projects.bre.co.uk/sap2001
17. SEDBUK ratings for boilers are available at – www.sedbuk.com
18. Further information is available from:

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Energy-efficiency of Replacement Windows

This “Question and Answer” handout on replacement windows for dwellings has been produced by the Building Standards Division of the Scottish Executive. It will complement the leaflet entitled “*Low Emissivity Glass – Conserve Scotland’s Fuel and Power*”, which has been produced for the benefit of the general public and industry by the Glass and Glazing Federation. The Executive welcomes the initiative taken to produce this leaflet.

What is the purpose of this handout?

This handout is to make you aware that, from the beginning of March 2003, better standards of energy-efficiency are required from replacement windows. This is a result of the Sixth Amendment to the Building Standards (Scotland) Regulations. In most existing dwellings, replacement windows will then need to have a U-value of not more than:

- 1.8 for windows with plastic or wooden frames
- 2.0 for windows with metal frames

What is a U-value?

A U-value is a measure of heat-loss from a building; the lower the value the better the performance.

Can I put in windows of poorer performance?

Generally, no. However there are sometimes exceptions:

- When a particularly energy-efficient gas or oil-fired central heating boiler has recently been installed in your house, your replacement windows may be able to have a slightly lower standard. If you think your boiler may qualify, speak to your glazing installer who will be able to advise on the written confirmation that he needs from you; or
- If you put in windows that are close to being identical to the ones that you are taking out. This will usually occur when your house is “Listed” as being of historic interest.

How will anyone be able to tell if I don’t install the correct windows?

If you don’t have the correct windows installed, you could be storing up trouble for the future. When you eventually come to sell your house, a surveyor may use a glass analysis gauge to establish whether or not the correct glass has been used. If the glazing is wrong, you may have problems with the house sale.

Do I need building control approval?

No, but your windows do need to comply with all other appropriate aspects of the Technical Standards to the Scottish building regulations - e.g. emergency escape, safe-cleaning, safety-glass and ventilation.

What about windows in an alteration or extension to a dwelling?

Generally the contents of this leaflet are still appropriate, but you will need building control approval from your local council. Their number is in the phone book and they will be able to advise on the drawings and specifications they need to process your application.



BUILDING REGULATION NOTE 1/2003

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