Glazing for buildings —

Part 7: Code of practice for the provision of information

 $ICS\ 81.040.20$



Committees responsible for this British Standard

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British Adhesives and Sealants Association

British Plastics Federation

British Woodworking Federation

Consumer Policy Committee of BSI

Council for Aluminium in Building

Flat Glass Manufacturers' Association

Glass and Glazing Federation

Nottingham University

Office of the Deputy Prime Minister — Building Division

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Foreword

This part of BS 6262 has been prepared by subcommittee B/520/4. It partially supersedes BS 6262:1982, which will be withdrawn upon publication of all seven parts of the newly revised and restructured BS 6262.

BS 6262:1982 is being revised and also restructured to simplify its use and will be published in seven parts:

- Part 1: General methodology for the selection of glazing;
- Part 2: Code of practice for energy, light and sound;
- Part 3: Code of practice for fire, security and wind loading;
- Part 4: Code of practice for safety related to human impact;
- Part 5: Code of practice for frame design considerations;
- Part 6: Code of practice for special applications;
- Part 7: Code of practice for the provision of information.

Recommendations for standards of workmanship for glazing have been published separately in BS 8000-7 and therefore this subject is not dealt with in this standard.

Since the correct selection of materials to be used in glazing for buildings depends on many factors, the recommendations in this part of BS 6262 should be used in conjunction with those in the other parts.

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification, and particular care should be taken to ensure that claims of compliance are not misleading.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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

In particular, attention is drawn to the following statutory regulations:

- a) the Building Regulations 2000 [2];
- b) the Building Regulations (Northern Ireland) 2000 [3];
- c) the Building Standards (Scotland) Regulations 2004 [4].

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

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1 Scope

This part of BS 6262 gives recommendations for the provision of information required to ensure a successful glazing installation.

These recommendations do not apply to:

- a) patent glazing (see BS 5516-1);
- b) glass in non-vertical applications (see BS 5516-2);
- c) glazing for furniture and fittings (see BS 7376 and BS 7449);
- d) glazing for commercial greenhouses (see BS 5502-21);
- e) glazing for domestic greenhouses.

Recommendations for standards of workmanship for glazing have been published separately in BS 8000-7 and therefore this subject is not dealt with in this standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 952-1, Glass for glazing — Part 1: Classification

SMM7, Standard method of measurement of building works, 7th edition. Berkshire: Royal Institute of Chartered Surveyors, 1998.

3 Terms and definitions

For the purposes of this part of BS 6262, the following terms and definitions apply.

3.1

glazing (noun)

glass or plastics glazing sheet material for installation into a building

3.2

glazing (verb)

action of installing glass, or plastics glazing sheet material, into a building

3.3

pane

single piece of glass or plastics glazing sheet material, in a finished size ready for glazing

3.4

plastics glazing sheet material

plastics materials in the form of a single sheet, or a combination of sheets laminated together, or an extruded multi-wall sheet

3.5

sight size

dimensions of the opening which, when glazed with a transparent or translucent material, admits light NOTE See Figure 1.

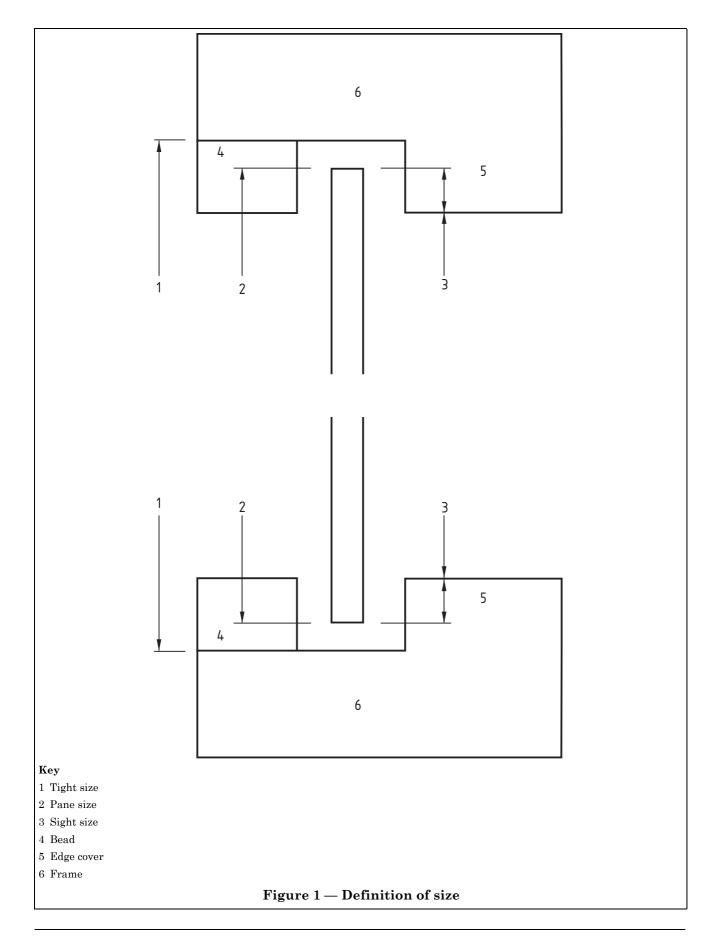
3.6

tight size

dimensions of the rebated opening

NOTE 1 This term is also referred to as the rebated size.

NOTE 2 See Figure 1.



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4 Information

4.1 Provision of information

Difficulties and abortive work occur when the designer's intentions are not made clear to the glazier. Ideally, there should be the fullest co-operation between the two at an early stage in the design process but this is not always possible. Therefore, it is essential that the designer gives adequate and clearly worded information and instructions in the contract documentation. The stages at which the information is needed, and the type of information that is needed, is outlined in **4.4**, **4.5** and **4.6**. The checklists are intended only as basic annotated checklists for the designer and the glazier.

Designers should consult the manufacturer to acquaint themselves fully with the behaviour of plastics glazing sheet material before specifying it for a glazing application to ensure that, when specified, it meets the user's requirements.

NOTE Attention is also drawn to the requirements of statutory regulations.

The designer or specifier should provide the glazier, or installer, with full instructions as to the type of plastics glazing sheet material and the glazing techniques, including any pre-treatment.

While this code of practice describes all of the work connected with glazing, the glazier might not carry all of the work out. The designer should therefore be satisfied that the whole of the work has been carried out in accordance with the recommendations of this code of practice.

4.2 The information stages

It is not feasible to attempt to assess the information needs over the whole range of possible contracts and circumstances. The following stages could relate to the medium project range; some modifications may be needed to suit other projects. The stages are based on the logical sequence of actions given in Figure 2. Ultimately, success depends on all concerned giving information at the correct time.

The information stages are:

- a) *Tender stage*, when the glazier is to be nominated as a specialist subcontractor, or when action is to be taken under b)2).
- b) Contract (order) stage, when the main contractor either:
 - 1) confirms or agrees to variations of the tender of the nominated subcontractor; or
 - 2) selects the glazier by the normal tender selection procedure;

and agrees to a subcontract.

c) Contract (glazing) stage, when variations might occur to the subcontract works.

4.3 Specification of requirements

Subject to any special contract requirements, the information to be given at each of the stages outlined within **4.2** should be as follows.

- a) Tender stage. The information should be contained within three basic sections.
 - 1) *Contract conditions*. This section should define the type of contract, and give full details of any variations therefrom, as well as any special legal or other requirements.
 - 2) *Building site conditions*. This section should adequately describe the location of the building; its environment and exposure; the storage and other facilities to be made available on site; and any special conditions to be taken into account by the glazier (see **4.5**).
 - 3) *Materials and labour*. This section should give a full description of the materials, systems and surrounds including their finishes and workmanship. Except in the simplest specifications, the description should usually conform to the Royal Institute of Chartered Surveyors' *SMM7: Standard method of measurement of building works*¹⁾.
- b) *Contract stages*. Information should be exchanged in accordance with standard procedure and as provided for under the terms of the contract. During this stage, the glazier might be asked to assist in the provision of information for incorporation into the building owner's manual (see **4.6**).

¹⁾ SMM7: Standard method of measurement of building works, 7th edition, published by the Royal Institute of Chartered Surveyors, 1998. Available from www.constructionbooksdirect.com.

4.4 Building site conditions

It is not feasible to attempt a detailed checklist to cover all sites and conditions. The designer should provide detailed information, particularly on difficult sites. It will be of benefit for the glazier to visit the site in most cases.

The areas of information fall into the following three parts.

- a) *Location*. Items should include the address of the site, the name and details of the contractor (if known at this stage), and the nature of any difficulty in site access.
- b) Working environment. Details, such as height of the building, exposure rating, etc., ascertained from location and elevational drawings, should accompany the other tender requirements for all except the simplest situation.
- c) Site conditions. The following information should be made available.
 - 1) Site storage. Site storage facilities and whether these are to be external or internal; the degree of security.
 - 2) Scaffolding, hoisting facilities. The type of scaffolding; any need to work from cradles, etc.
 - 3) Notification of any special conditions. Details of any site restriction and conditions.

NOTE 1 See 4.3a)2)

NOTE 2 Attention is also drawn to the Construction (Design and Management) Regulations 1994 [1] and health and safety issues.

4.5 Materials and processes

4.5.1 General

Before preparing a specification, the manufacturer's literature should be consulted and any case of doubt referred to the manufacturer.

$4.5.2\ Information\ to\ be\ given\ within\ a\ tender\ document\ or\ when\ ordering\ glass,\ as\ appropriate$

The following information should be given as appropriate.

- a) General description and intended purposes of the work.
- b) Description of the materials:
 - 1) type, quality and substance (for glass, this is described in BS 952-1), and combinations of materials, e.g. insulating glass unit make-up, specified in accordance with the manufacturer's literature, giving product description, claimed performance figures and overall thickness;
 - 2) pattern, including the direction of the pattern when the pane is installed, and any need for alignment;
 - 3) size, giving the width of the pane as installed as the first dimension;
 - 4) quantity of each type and size;
 - 5) compliance with appropriate harmonised European Standard (see Annex A).
- c) Special requirements:
 - 1) edge condition, to be suitable for particular application;
 - 2) edgework, including smoothing, chamfering, bevelling, etc.;
 - 3) shaping or, if the shape cannot be described simply, a drawing or template should be supplied;
 - 4) position and sizes of holes; for complex patterns a rigid template should be provided;
 - 5) decoration and surface work describing the nature and technique to be used, and size of panel (in most cases, a design drawing that is preferably full size should be provided);
 - 6) stepped insulating glass units specifying the size of any step and overall size of both panes.

4.5.3 Information to be given within a tender document or when ordering plastics glazing sheet materials, as appropriate

All glazing allowances should be made in accordance with this code of practice. The performance of most plastics glazing sheet materials can be modified by the inclusion of additives to enhance a specific property, e.g. behaviour under conditions of fire testing, impact properties, weathering.

The following information should be given to the manufacturer or supplier when ordering.

- a) The purpose for which the plastics glazing sheet material is required, to enable the manufacturer or supplier to supply the correct type.
- b) In specifying the size, the first dimension should be the horizontal length (often known as the width).
- c) In specifying the size or preparing templates for shaped plastics glazing sheet materials, the face side should be specified.
- d) In specifying the size of directional patterned panes, the direction of the pattern should be stated.
- e) In specifying factory-made double glazing units or thermoformed units, both the tight size and the sight size should be given.

4.5.4 Measurement

Except in a simple specification, the descriptions and measurements should conform to SMM7: Standard method of measurement for building works. Items not covered in these documents should be described in a similar manner.

NOTE See 4.3a)3).

4.6 Building owner's manual

4.6.1 Introduction

The building owner's manual is a document, prepared by parties to the contract, which gives the building owner sufficient information for the maintenance of the owner's property and including information on glazing.

It is not feasible to attempt a detailed checklist for every contingency over the whole possible range of contracts and circumstances within this code of practice. Any full list of requirements needs to be a matter for co-operation and agreement between the designer and the glazier.

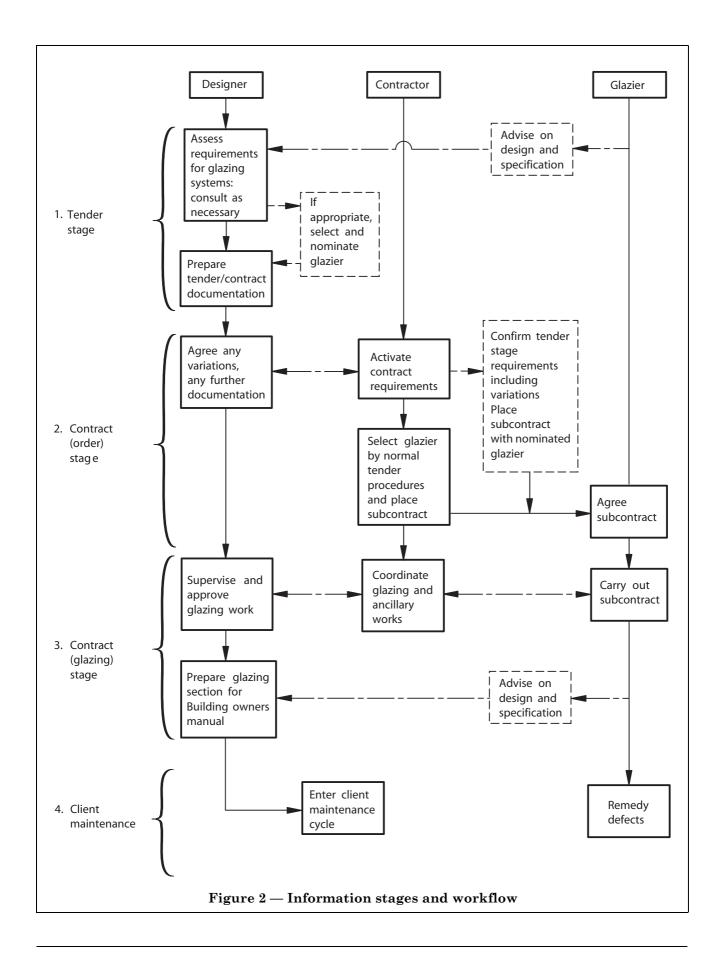
4.6.2 Information to include in the building owner's manual

The areas of information fall, logically, into the following three parts.

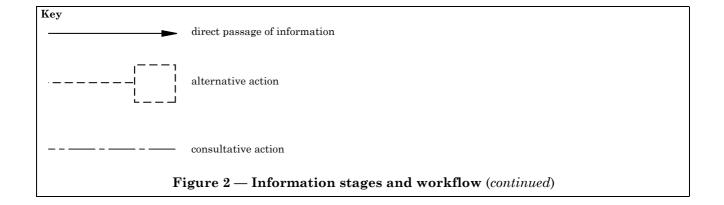
- a) General information. This should give the name(s), address(es), and other details of the glazier and the materials suppliers, together with copies of drawings showing the glass and/or plastics glazing sheet materials and systems used, reports, technical literature, catalogues, etc.
- b) Maintenance instructions:
 - 1) Glass and plastics glazing sheet materials. This should include: frequency of cleaning, techniques and materials to be used and any cautionary or advisory notes.
 - 2) Glazing system. This should include: the frequency of regular inspections and points to look for, general maintenance techniques and materials to be used and any cautionary or advisory notes.
- c) Repair and replacement:
 - 1) General. This should detail the methods of inspection and the criteria for repair or replacement.
 - 2) Glass, plastics glazing sheet materials and glazing system. This should include: purchasing and replacement instructions, details of when specialist, rather than normal, maintenance work is necessary and any advisory or cautionary notes.

NOTE See 4.3b).

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Annex A (informative) Harmonised European Standards (hENs)

A.1 Compliance with the Construction Products Directive (CPD)

The CPD has been enacted to remove technical barriers to trade in construction products. These barriers are being removed by means of a pan-European technical specification, written by CEN²⁾, together with agreed systems of Attestation of Conformity.

CEN has passed the task of producing technical standards to CEN TC 129 - Glass in building. This technical committee has produced a number of standards covering the following:

- product description standards;
- test method standards;
- calculation method standards.

It is also responsible for the production of harmonised European Standards (hENs), (see **A.3**) that detail how a manufacturer can "evaluate the conformity" of the product. Using the appropriate evaluation of conformity part, a manufacturer can prepare to CE mark the product. It is essential that a CE mark product also has with it a document that gives the claimed performance for the product. The claimed performances are with respect to the essential characteristics (see **A.2**).

A.2 Essential characteristics

The mandate, M135³⁾, issued by the European Commission to CEN for the work on glass in building, gives the products and performances that are to be standardized.

The mandate details the 13 characteristics it is essential for a manufacturer to consider when CE marking a glass product against one of the hENs (see **A.3**).

The manufacturer does not need to make a claim against all of the characteristics. They may declare that there is no performance determined (NPD) when they do not wish to make a claim or there is no regulatory requirement for that characteristic in the country for which the product is intended.

The essential characteristics are:

- a) Safety in case of fire:
 - 1) fire resistance;
 - 2) reaction to fire;
 - 3) external fire performance (for roof coverings only).
- b) Safety in use
 - 1) bullet resistance: shatter properties and resistance to attack;
 - 2) explosion resistance: impact behaviour and resistance to attack;
 - 3) burglar resistance: shatter properties and resistance to attack;
 - 4) pendulum body impact resistance: shatter properties (safe breakability) and impact resistance to;
 - 5) mechanical resistance: resistance against sudden temperature changes and temperature differentials:
 - 6) mechanical resistance: resistance against wind, snow, permanent and imposed loads and/or imposed loads of the glass unit.
- c) Protection against noise:
 - 1) direct airborne sound reduction.
- d) Energy conservation and heat retention:
 - 1) thermal properties;
 - 2) radiation properties light transmittance and reflectance;
 - 3) radiation properties solar energy characteristics.

²⁾ Comité Européen de Normalisation (European Committee for Standardisation)

³⁾ Mandate M135 — Flat glass, profiled glass and glass block products, February 2000

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A.3 Harmonised European Standards (hENs)

The list of hENs is as follows:

BS EN 572-9, Glass in building — Basic soda lime silicate glass products — Part 9: Evaluation of conformity/Product standard;

BS EN 1096-4, Glass in building — Coated glass — Part 4: Evaluation of conformity/Product standard;

prEN 1279-5, Glass in building — Insulating glass units — Part 5: Evaluation of conformity;

BS EN 1748-1-2, Glass in building — Special basic products — Borosilicate glass — Part 1-2: Evaluation of conformity/Product standard;

BS EN 1748-2-2, Glass in building — Special basic products — Glass ceramics — Part 2-2: Evaluation of conformity/Product standard;

BS EN 1863-2, Glass in building — Heat strengthened soda lime silicate glass — Part 2: Evaluation of conformity/Product standard;

BS EN 12150-2, Glass in building — Thermally toughened soda lime silicate safety glass — Part 2: Evaluation of conformity/Product standard;

BS EN 12337-2, Glass in building — Chemically strengthened soda lime silicate glass — Part 2: Evaluation of conformity/Product standard;

BS EN 13024-2, Glass in building — Thermally toughened borosilicate safety glass — Part 2: Evaluation of conformity/Product standard;

BS EN 14178-2, Glass in building — Basic alkaline earth silicate glass products — Part 2: Evaluation of conformity/Product standard;

prEN 14179-2, Glass in building — Heat soaked thermally toughened soda lime silicate safety glass — Part 2: Evaluation of conformity;

prEN 14449, Glass in building — Laminated glass and laminated safety glass — Evaluation of conformity.

Bibliography

Standards publications

BS 5502-21, Buildings and structures for agriculture — Part 21: Code of practice for selection and use of construction materials.

BS 5516, Code of practice for design and installation of sloping and vertical patent glazing.

BS 7376, Inclusion of glass in the construction of tables or trolleys — Specification.

BS 7449, Specification for inclusion of glass in the construction of furniture, other than tables or trolleys, including cabinets, shelving systems and wall hung or free standing mirrors.

BS 8000-7, Workmanship on building sites — Part 7: Code of practice for glazing.

Other publications

[1] GREAT BRITAIN: The Construction (Design and Management) Regulations 1994. London: The Stationery Office, 1994.

[2] GREAT BRITAIN: The Building Regulations 2000, SI 2000, No. 2531, as amended. London: The Stationery Office.

[3] GREAT BRITAIN: The Building Regulations (Northern Ireland) Statutory Rules 2000, SR 2000, No. 389. London: The Stationery Office.

[4] GREAT BRITAIN: The Building Standards (Scotland) Regulations 2004, SI 2004, No. 406, as amended. London: The Stationery Office.



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