<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>British standards – BSI</td>
<td>3</td>
</tr>
<tr>
<td>British/European standards – BS EN</td>
<td>7</td>
</tr>
<tr>
<td>British/European/international standards – BS EN ISO</td>
<td>13</td>
</tr>
<tr>
<td>British automotive standards – BS AU</td>
<td>15</td>
</tr>
<tr>
<td>British standards – marine series – BS MA</td>
<td>15</td>
</tr>
<tr>
<td>International standards – ISO</td>
<td>16</td>
</tr>
<tr>
<td>British/international standards – BS ISO</td>
<td>17</td>
</tr>
<tr>
<td>German standards – DIN</td>
<td>18</td>
</tr>
<tr>
<td>American standards – ASTM</td>
<td>20</td>
</tr>
<tr>
<td>Other guidance/publications</td>
<td>22</td>
</tr>
</tbody>
</table>
British standards – BSI

BS 476 – Fire tests on building materials and structures
Part 22: 1987 – Methods for determination of the fire resistance of non-loadbearing elements of construction


BS 952: Glass for glazing
Part 1: 1995 – Classification
Part 2: 1980 – Terminology for work on glass

BS 1748: Glass in building
Part 1-1: 2004 Special basic products. borosilicate glasses. definition and general physical and mechanical properties
Part 2-1: 2004 Special basic products. glass ceramics. definitions and general physical and mechanical properties
Part 2-2: 2004 Special basic products. glass ceramics. evaluation of conformity. product standard

BS 2975: Glassmaking sands
Part 1: 2004 Methods for sampling and physical testing of glass-making sands
Part 2: 2008 Sampling and analysis of glass-making sands. Methods for chemical analysis

BS 3193: 2008 – Specification for thermally toughened glass panels for use in domestic appliances

BS 3447: 1962 (1997) – Glossary of terms used in the glass industry

BS 3463: 1975 – Specification for observation and gauge glasses for pressure vessels

BS 4031: 1966 (obsolescent) – Specification for X-ray protective lead glasses

BS 4783: 2016 - Aluminium alloy windows and doorsets. Specification.

BS 4875: 2001 Strength and stability of furniture
Part 5: Requirements for strength, durability and stability of tables and trolleys for domestic and contract use (replaces BS 4875 part 6)
Amendment 1 incorporated into an updated standard 2007.
SUPERSEDED BY BS EN 12521: 2015
BS 5051: - Bullet resistant glazing
current, obsolescent, partially replaced by BS EN 1063: 2000

BS 5286: Specification for aluminium framed sliding glass doors has been withdrawn (April 2005) without replacement

BS 5357: 2007 – Code of practice for installation of security glazing

BS 5395: Stairs, ladders and walkways
Part 1: 2010 – Code of practice for the design, construction and maintenance of straight stairs and winders
Part 2: 1984 - Stairs, ladders and walkways. Code of practice for the design of helical and spiral stairs
Part 3: 1985 - Stairs, ladders and walkways. Code of practice for the design of industrial type stairs, permanent ladders and walkways – WITHDRAWN, replaced by
BS EN ISO 14122-1:2001+A1:2010
Safety of machinery. Permanent means of access to machinery. Choice of a fixed means of access between two levels
Part 4: 2011 - Code of practice for the design of stairs for limited access

BS 5516: 2004 – Code of practice for design and installation of sloping and vertical patent glazing
Part 1: Code of practice for design and installation of sloping and vertical patent glazing
Part 2: Code of practice for sloping glazing

BS 5544: 1978 (1994) - Specification for anti-bandit glazing (glazing resistant to manual attack)
– REPLACED by BS EN 356: 2000

BS 5588- Fire precautions in the design, construction and use of buildings
Part 0: 1990 – Guide to fire safety codes of practice for particular premises/applications
REPLACED
Part 7: 1997 – Code of practice for the incorporation of atria in buildings
Part 11: 1997 – Code of practice for shops, offices, industrial, storage and other similar buildings
All Parts of BS 5588 replaced by BS 9999:2017

BS 6100-0: 2010 – Building and civil engineering – vocabulary – introduction and index

BS 6100-1.4.1: 1999: Materials – Glazing
Superseded by BS 6100-6: 2008
BS 6100-6:2008 - Building and civil engineering. Vocabulary. Construction parts


Note: this standard only relates to plastics. The section pertaining to glass is covered in BS EN 12600: 2002 Glass in building. Pendulum test. Impact test method and classification for flat glass.

BS 6262: 2005 – Code of practice for glazing for buildings
Part 1: 2005 – General methodology for the selection of glazing
Part 2: 2005 – Code of practice for energy, light and sound
Part 4: 2005 – Safety related to human impact
Part 5: 2005 – Code of practice for special application
Part 7: 2005 - Code of practice for the provision of information

BS 6340: 1985 – Shower units

BS 6510: 2010 Steel-framed windows and glazed doors

BS 6399: Loading for buildings
Part 2: Code of practice for wind loads

BS 6993: 1990 Thermal and radiometric properties of glazing

BS 7034: Viscosity and viscometric fixed points of glass
Part 1: 1988 Recommendations for use in the determination of viscosity and viscometric fixed points
Part 2: 1988 Method for the determination of viscosity by rotation viscometers
Part 3: 1988 Method for the determination of viscosity by fibre elongation viscometer
Part 4: 1988 Method for the determination of viscosity by beam bending
Part 5: 1988 Method for the determination of working point by sinking bar viscometer
Part 6: 1988 Method for the determination of softening point
Part 7: 1988 Method for the determination of annealing point and strain point by beam bending
Part 8: 1988 Method for the determination of (dilatometric) transformation temperature

SUPERSEDED BY BS EN 12521: 2015

BS 7449: 1991 (1997) WITHDRAWN – 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 REPLACED BY: BS EN 14749

BS 8000: - Workmanship on building sites
Part 7: 1990 – Code of practice for glazing
British/European standards – BS EN

**BS EN 356: 2000** – Glass in building – security glazing. testing and classification of resistance against manual attack

**BS EN 357: 2004** – Glass in building. fire resistant glazed elements with transparent or translucent glass products. Classification of fire resistance

**BS EN 410: 2011** – Glass in building. determination of luminous and solar characteristics of glazing

**BS EN 572: 2012** - Glass in building. basic soda lime silicate glass products
   BS EN 572-1: 2012 + A1: 2016 - Glass in building. Basic soda-lime silicate glass products. Definitions and general physical and mechanical properties
   Part 2: 2012 – Float glass
   Part 3: 2012 – Polished wired glass
   Part 4: 2012 – Drawn sheet glass
   Part 5: 2012 – Patterned glass
   Part 6: 2012 – Wired patterned glass
   Part 7: 2012 – Wired or unwired channel shaped glass
   Part 9: 2004 – Evaluation of conformity

**BS EN 673: 2011** – Glass in Building. Determination of thermal transmittance (U value) calculation method

**BS EN 674: 2011** – Glass in building. determination of thermal transmittance (U value). guarded hot plate method

**BS EN 675: 2011** – Glass in Building. determination of thermal transmittance (U value). heat flow meter method

**BS EN 1036:** Glass in building. mirrors from silver-coated float glass for internal use
   Part 1: 2007 Mirrors from silver-coated float glass for internal use. Definitions, requirements and test methods
   Part 2: 2008 Mirrors from silver-coated float glass for internal use – Conformity

**BS EN 1051:** Glass blocks and glass paver units - definition, requirements, test methods and inspections
   Part 1: Definition and description 2003

**BS EN 1093: 2012** Glass in building. Coated glass.
Part 3. Requirements and test methods for class C and D coatings

**BS EN 1096: 2012** Glass in building. Coated glass
Part 1 2012: Definitions and classification
Part 2 2012: Requirements and test methods for Class A, B, and S coatings
Part 3 2012: Requirements and test methods for Class C and D coatings
BS 5:2016: Test method and classification for the self-cleaning performances of coated glass surfaces


**BS EN 1863: 2011** – Heat strengthened soda lime silicate glass
Part 2: Evaluation of conformity published (current 2017, work in hand)

**BS EN 1153: 1996**
Kitchen furniture: safety requirements and test methods for built-in and free-standing Kitchen Cabinets and worktops WITHDRAWN, replaced by **BS EN 14749:2005** Domestic and kitchen storage units and worktops. Safety requirements and test methods – which was also WITHDRAWN, and replaced by:
**BS EN 14749:2016** -Furniture. Domestic and kitchen storage units and kitchen-worktops. Safety requirements and test methods

**BS EN 1279: 2004** Glass in building – insulating glass units
Part 1: 2004: Generalities, dimensional tolerances and rules for the system description
Part 2: 2005: Long term test method and requirements for moisture penetration
Part 3: 2002: Long term test method and requirements for gas leakage rate and for gas concentration tolerances
Part 4: 2002: Methods of test for the physical attributes of edge seals
Part 6: 2002: factory production control and periodic tests

**BS EN 1288: 2000** - Determination of bending strength of glass
Part 1: 2000 Fundamentals of testing glass
Part 2: 2000 Coaxial double ring test on flat specimens with large test surface areas
Part 3: 2000 Test with specimen supported at two points (four-point bending)
Part 4: Testing of channel shaped glass
Part 5: Coaxial double ring test on flat specimens with small test surface areas

**BS EN 1730: 2012** - Domestic furniture - tables - test methods for determination of strength, durability and stability

**BS EN 1748: 2004** - Glass in building
  Part 1-2: 2004 – Special basic products – borosilicate glass – conformity
  Part 2-2: 2004 – Special basic products – glass ceramic - conformity

**BS EN 1863:** – Glass in building – heat strengthened soda lime silicate glass

**BS EN 2155:** - Specification for test methods for transparent materials for aircraft glazing
  Part 2: 1993 – Determination of water absorption
  Part 3: 1993 – Determination of refractive index
  Part 5: 1989 – Determination of visible light transmission
  Part 7: 1997 – Determination of optical deviation
  Part 8: 1989 – Determination of optical distortion
  Part 9: 1989 – Determination of haze
  Part 12: 1997 – Determination of linear thermal expansion
  Part 13: 1993 – Determination of temperature at deflection under load
  Part 14: 1993 – Determination of the 1/10 Vicat softening temperature
  Part 19: 1997 – Determination of craze resistance


  Part 2: Product standard

**BS EN 12150-1:2015** - Glass in building. Thermally toughened soda lime silicate safety glass.
  Definition and description
  Part 2: 2004 - Evaluation and conformity

**BS EN 12337: 2000** – Glass in Building – Chemically strengthened soda lime silicate glass
  Part 1: 2000 – Definition and description
  Part 2: 2004 – Chemically strengthened soda-lime silicate glass – evaluation of conformity

**BS EN 12412:2003** – Thermal performance of windows, doors and shutters
  Part 4: 2003 – Determination of thermal transmittance by hot box method. roller shutter Boxes
BS EN 12430: 2013 – Thermal insulating products for building applications – determination of behaviour under point load


BS EN 12600:2002 Glass in building – pendulum test – impact test method and classification for flat glass

BS EN 12603: 2002 – Glass in building. Procedures for goodness of fit and confidence intervals for Weibull distributed glass strength data


BS ISO 12775: 1997 – Guidelines on types of glass of normal bulk-production composition and their test methods

BS EN 12898: 2001 – Glass in building. Determination of the emissivity

BS EN 12939: 2001 – Thermal performance of building materials and products. determination of thermal resistance by means of guarded hot plate and heat flow meter methods. thick products of high and medium thermal resistance

BS EN 13022: 2014 – Glass in building. structural sealant glazing
Part 1: Glass products for structural sealant glazing systems supported and unsupported monolithic and multiple glazing
Part 2: Assembly rules

BS EN 13024: 2011 – Glass in building – thermally toughened borosilicate safety glass
Part 1: Definition and description
Part 2: 2004 – Evaluation of conformity

BS EN 13049: 2003 - Windows – Soft and heavy body impact. test method, safety requirements and classification (current, under review)


BS EN 13496: 2013 – Thermal insulation products for building applications. determination of the mechanical properties of glass fibre meshes

BS EN 13541: 2012 – Glass in building. security glazing. Testing and classification of resistance against explosion pressure

BS EN 14072: 2003 – Glass in furniture – Test methods

BS EN 14178: 2004 – Glass in building – basic alkaline earth silicate glass products
Part 2: Evaluation of conformity

BS EN 14188-1: 2004 - Specification for hot applied sealants
Part 2: 2004 - Specification for cold applied sealants

BS EN 14179: 2016 – Heat soaked thermally toughened soda lime silicate safety glass
Part 1 2016 - Definition and description

Part 1: 2005 - Definition and Description
Part 2: 2005 - Evaluation of Conformity/Product Standard

BS EN 14749: 2016 - Furniture. Domestic and kitchen storage units and kitchen-worktops. Safety requirements and test methods

BS EN 15372: 2016 Furniture - Strength, durability and Safety. Requirements for non-domestic tables.

BS EN 15434: 2006+A1 2010 – Glass in Building
Product Standard for Structural and/or Ultraviolet Resistant Sealant (for use with structural sealant glazing and/or insulating glass units with exposed seals)

BS EN 15681-1: 2016 - Glass in building. Basic alumino silicate glass products. Definitions and general physical and mechanical properties
BS EN 15682-1:2013
Glass in building. Heat soaked thermally toughened alkaline earth silicate safety glass.
Definition and description
Part 2: Evaluation of conformity/Product standard

BS EN 15683-1:2013
Glass in building. Thermally toughened soda lime silicate channel shaped safety glass.
Definition and description

BS EN 15998 – 2010 - Glass in building. Safety in Case of Fire, Fire Resistance. Glass testing methodology for the purpose of classification

BS EN 16382: 2016 - Thermal insulation products for building applications. Determination of the pull-through resistance of plate anchors through thermal insulation products

BS EN 16477: 2016 - Glass in building - painted glass for internal use
Part 1: Requirements

BS EN 61006: 2004 – Methods of test for determination of the glass transition temperature of electrical insulating materials


BS EN 1279-6:2018. - Glass in building. Insulating glass units. Factory production control and periodic tests

BS EN 1279-1:2018 - Glass in building. Insulating glass units. Generalities, system description, rules for substitution, tolerances and visual quality


British/European/International standards – BS EN ISO

BS EN ISO 3009: 2003 – Fire resistance tests – elements of building construction. glazed elements

   Part 2: 2012 – Numerical method for frames

BS EN ISO 11431: 2002 – Building construction. jointing products. determination of adhesion/cohesion properties of sealants after exposure to heat, water and artificial light through glass


BS EN ISO 12543: - Glass in building. Laminated glass and laminated safety glass
   Part 1: 2011 – Definitions and description of component parts
   Part 2: 2011 – Laminated safety glass
   Part 3: 2011 – Laminated glass
   Part 4: 2011 – Test methods for durability
   Part 5: 2011 – Dimensions and edge finishing
   Part 6: 2011 – Appearance

BS EN ISO 13035-2: 2008 – Machines and plants for the manufacture, treatment and processing of flat glass. safety requirements.
   Part 2. Storage, handling and transportation equipment outside the factory


BS EN ISO 21078: 2008 - Determination of boron (III) oxide in refractory products. Determination of total boron (iii) oxide in oxidic materials for ceramics, glass


BS EN ISO 10545-2:2018-Ceramic tiles. Determination of dimensions and surface quality
**British automotive standards – BS AU**

This 1992 version has been produced to align the standard with ECE (United Nations Economic Commission for Europe) Regulation 43.


**BS AU 251: 1994 – Specification for performance of automotive laminated windscreen repair systems.**

**British standards – marine series – BS MA**

**BS MA 25: 1973 – Specification for ships’ windows**

**BS MA 88:1980 – Ships and marine technology. Heated glass panes for ships’ rectangular windows**
*Replaced by BS ISO 3434:2012*
International standards – ISO


ISO 9050: 2003 – Glass in buildings – Determination of light transmittance, solar direct transmittance, total solar energy transmittance and ultraviolet transmittance

ISO 10545: 2016 Glass in building. basic soda lime silicate glass products. patterned glass


ISO 13837: 2008 Road vehicles. safety glazing materials. Method for the determination of solar transmittance


Ed 1:2005 (RO9) - Test and classification by repetitive ball drop
Ed 2: 2005 (RO9) - Test and classification by repetitive impact of a hammer and axe at room temperature
Ed 3: 2005 (RO9) - Test and classification by manual attack
Part 4: 2005 - Test and classification by pendulum impact under thermally and fire stressed conditions


British/International standards – BS ISO


BS ISO 3537: 2015 - Road vehicles. Safety glazing materials. Mechanical tests

BS ISO 3917: 2016 - Road vehicles. Safety glazing materials. Test methods for resistance to radiation, high temperature, humidity, fire and simulated weathering

BS ISO 17449: 2015 - Road vehicles. Safety glazing materials. Test methods for properties of electrically heated glazing

BS ISO 21005: 2012 – Ships and marine technology. Thermally toughened safety glass panes for windows and side scuttles (Current, work in hand)


BS ISO 25597: 2013 Stationary source emissions - Test method for determining PM 2, 5, and PM 10 mass in stack gases using cyclone samplers and sample dilution.

BS ISO 29584: 2015 – Glass in Building - Pendulum impact testing and classification of safety glass for use in buildings

BS ISO 23013:2016 – Road vehicles. Determination of resistance to forced entry of security glass constructions used in vehicle glazing. Test of glazing systems

German standards – DIN

**DIN EN 1036: 2008** – Glass in building mirrors from silver-coated float glass for internal use
  - Part 1: 2008 – Definition, requirements and test methods

**DIN EN 1096: 2015** – Glass in building - Coated glass
  - Part 1: 2012 - Definitions and classifications
  - Part 2: 2012 - Requirements and test methods for class A, B and S coatings
  - Part 2: 2012 - 3 Requirements and test methods for class C and D coatings; German version EN 1096-3:2012
  - Part 4: Evaluation of conformity / Product standard; German and English version

**DIN 1249: 2011** Glass in building; glass edges; concept; characteristic of edge type and finishes
  - Part 11: 2017 - Glass edges - Terms and definitions, characteristics of edge types and finishes (not published until May 2017)

**DIN EN 1279: 2015** - Glass in building - Insulating glass units
  - Part 1: 2015 - Generalities, system description, rules for substitution, tolerances and visual quality;
  - Part 2: 2015 (draft). Long term test method and requirements for moisture penetration
  - Part 3: 2015 (draft)- Long term test method and requirements for gas leakage rate and for gas concentration tolerances
  - Part 4: 2002 - Methods of test for the physical attributes of edge seals
  - Part 5: 2015 (draft) - Evaluation of conformity; German and English version
  - Part 6: 2015 (draft) - Factory production control and periodic tests; German and English version

**DIN EN 12150** – Glass in Building - Thermally toughened soda lime silicate safety glass
  - Part 1: 2015 - Definition and description
  - Part 2: 2015 – Evaluation of conformity/Product standard

**DIN 15681:2016** – Glass in building - basic alumina-silicate glass products
  - Part 1: 2016 - Definitions and general physical and mechanical properties
  - Part 2: 2016 (draft) - Evaluation of conformity/product standard

**DIN 18008** Glass in Building – Design and construction rules
  - Part 1: 2010 - Terms and general bases
  - Part 2: 2010 - Linearly supported glazing, Corrigendum to DIN 18008-2:2010-12

**DIN 18008-3: 2013** Glass in Building - Design and construction rules - Part 3: Point fixed glazing

**DIN 18008-4: 2013** Glass in Building - Design and construction rules - Part 4: Additional requirements for barrier glazing
DIN 18008-5: 2013 - Glass in Building - Design and construction rules - Part 5: Additional requirements for walk-on glazing

DIN 18516: 1990 - Back-ventilated, Non-loadbearing, external enclosures of buildings made from tempered safety glass panels
Part 1: Requirements and testing

DIN 12354: 2016 - Building acoustics - Estimation of acoustic performance of buildings from the performance of elements
Part 1: 2000 - Airborne sound insulation between rooms
Part 2: 2000 - Impact sound insulation between rooms
Part 3: 2000 - Airborne sound insulation against outdoor sound
Part 4: 2001 - Transmission of indoor sound to the outside

DIN 52338: 2016 - Test methods for flat glass in building - Ball drop test for laminated glass

American standards – ASTM

ASTM C 158 2012 Strength of glass by flexur (determination of modulus of rupture) test methods


ASTM C 169 2016 Chemical analysis of soda-lime and borosilicate glass, test methods

ASTM C 336 2015 Annealing point and strain point of glass by fibre elongation, test method

ASTM C 338 2013 Softening point of glass, test method

ASTM C 372 (94)– 2016 Standard test method for linear thermal expansion of porcelain enamel and glaze frits and fired ceramic whiteware products by the dilatometer method.

ASTM C 429 2016 Sieve analysis of raw materials for glass manufacturer. Test method

ASTM C 539 2016 Standard test method for linear thermal expansion of porcelain enamel and glaze frits and ceramic whiteware materials by interferometric method.

ASTM C 598 2013 Annealing point and strain point of glass by beam bending, Test method

ASTM C 623 2015 Standard test method for young’s modulus, shear modulus, and Poisson’s ratio for glass and glass-ceramics by resonance

ASTM C 657 2013 Standard test method for D-C volume resistivity of glass

ASTM C 693 2013 Density of glass by buoyancy. Test method

ASTM C 724 - 2015 Standard test method for acid resistance of ceramic decorations on architectural-type glass

ASTM C 730 2013 Knoop indentation hardness of glass, Test method


ASTM C 813 2014 Hydrophobic contamination on glass by contact angle measurement. Test method

ASTM C 829 2015 Measurement of liquidus temperature of glass by the gradiant furnace method. Practice
ASTM C 912 2013 Density of glass by the sink-float comparator. Test method

ASTM C 965 2012 Measuring viscosity of glass above the softening point. Practice


ASTM C 1036 2016 Flat glass, Specification

ASTM C 1048 2012 e1 Heat strengthened and fully tempered flat glass

ASTM C 1086 2016 Standard specification for glass fiber mechanically bonded felt thermal insulation.

ASTM C 1172 2014 Laminated architectural flat glass. Specification

ASTM C 1256 2013 Standard practice for interpreting glass fracture surface features

ASTM C 1279 2013 Non-destructive photo-elastic measurement of edge and surface stresses in annealed, heat-strengthened, and fully tempered flat glass

ASTM C 1349 2010 Standard specification for architectural flat glass clad polycarbonate

ASTM C 1350M 2013 Standard test method for measurement of viscosity of glass between softening point and annealing range (Approximately Pa•s to Approximately 1013 Pa•s) by beam bending (metric)

ASTM C 1376 2015 Pyrolytic and vacuum deposition coatings on flat glass

ASTM C 1422M 2015 Chemically strengthened flat glass

ASTM C 1464 2016 Bent glass

ASTM C 1503 2013 Standard specification for silvered flat glass mirror

ASTM C 1678 2015 Standard practice for fractographic analysis of fracture mirror sizes in ceramics and glasses

ASTM D 3891 2014 Standard practice for preparation of glass panels for testing paint, varnish, lacquer, and related products
ASTM E 2358 2010 Standard specification for the performance of glass in permanent glass railing systems, guards, and balustrades.

ASTM F 2813 2012 Glass used as a horizontal surface in desks and tables


Other guidance/publications

CWCT (Centre for Window and Cladding Technology) Technical note No 68 – Overhead glazing 2010
See CWCT Publications List: www.cwct.co.uk/publications/notes.htm

[Regulation] ECE R 43 – Laminated windscreens (European)
This regulation can be downloaded from: www.unece.org/fileadmin/DAM/trans/main/wp29/wp29regs/R043r3e.pdf

ANSI – 97.1: 2015 – Safety glazing materials used in buildings
ANSI (USA) Standards can be purchased from: www.ansiz97.com/standard/

Disclaimer: while we endeavour to ensure that the information contained in this document is correct, British Glass does not make any warranties or representations about the accuracy and completeness of the material on it. The material may be out of date. Users should seek appropriate advice before proceeding on the basis of any information.