

Terms relating to ophthalmic optics and spectacle frames

Part 2. Glossary of terms relating to spectacle frames

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Health Care Standards Policy Committee (HCC/-) to Technical Committee HCC/78, upon which the following bodies were represented:

- Association for Consumer Research (ACRE)
- Association of British Dispensing Opticians
- Association of Contact Lens Manufacturers
- British College of Optometrists
- British Contact Lens Association
- British Medical Association
- British Spectacle Frame Makers' Association
- British Universities Committee of Contact Lens Educators
- College of Ophthalmologists
- Consumer Policy Committee of BSI
- Department of Health
- Department of Trade and Industry (National Physical Laboratory)
- Federation of Manufacturing Opticians
- Federation of Ophthalmic and Dispensing Opticians
- Flat Glass Manufacturers' Association
- OPTIC (UK)

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Foreword

This Part of BS 3521 has been revised under the direction of the Health Care Standards Policy Committee and, together with BS 3521 : Part 1 : 1991, supersedes BS 3521 : Parts 1 & 2 : 1962 which is withdrawn.

The first edition of this Part of BS 3521 was published jointly with Part 1 in 1962. Since that time, the terminology relating to spectacle frames (and ophthalmic optics in general) has changed, mainly because of the development of increased international trade. This development has encouraged participation by many countries in the work of the International Organization for Standardization (ISO) and, in particular, in the work of ISO Technical Committee 172. That Committee has been and is being instrumental in the preparation of a number of international standards and, in this revision of BS 3521 : Part 2, the terms and definitions have been updated in order to align with current international usage. Indeed, to facilitate a common understanding of the terminology, the lists of equivalent terms given in EN ISO 7998 - 1996, 'Optics and optical instruments — Spectacle frames — Vocabulary and lists of equivalent terms', has been published as BS EN ISO 7998 : 1996. The listed terms are presented in seven languages: English (both British and North American), French, Russian, German, Italian and Spanish.

The purpose of this British Standard is unaltered from that of the first edition: it is to assist the mutual understanding of manufacturers, purchasers, users and others that have connections with the production, specification and sale of spectacle frames. The use of an identical meaning for a word is all-important in such transactions.

This Part of BS 3521 presents a glossary, with a numerical classification, listing most of the terms in common use by those who design, teach the theory of, make or handle spectacle frames. The initial numeral '2' in a reference to a classified term indicates that that term is included in this Part of BS 3521 (i.e. Part 2); the initial numerals 0 and 1 in a cross-reference to a term indicates that that term is included in BS 3521 : Part 1. An alphabetical index to this Part is provided for ease of reference.

The preferred term, where more than one term exists, is given first in bold type. Other terms, which are at present acceptable but which it is hoped will fall into disuse, are set in medium type below the preferred term. Certain terms in current use are objectionable for various reasons, such as that they are confusing, or inaccurate or ambiguous; these terms are followed by the word 'deprecated'.

Italicized words indicate terms that are defined elsewhere in this Part of BS 3521.

A minor restructuring of this Part of BS 3521 has been carried out, although the titles of the majority of the sections and subsections have been unaltered. However, in preparing this revision, it was decided to delete section 24 'Materials' which appeared in the 1962 edition, because all the terms are of a general nature and none were specific to the spectacle frame industry. Other terms have also been deleted as either they were no longer in common use in the industry or they had meanings little different from their dictionary definitions. A number of definitions have been amended editorially and some terms, which are now in current use (some of which are taken from BS 3199) or which were required for correspondence with terms in EN ISO 7998, have been introduced. It is because of all these changes, that it has not been feasible to retain the 1962 edition's identifying code numbers for the terms.

At the time of publication, the British Standards that relate to ophthalmic subjects include the following:

BS 2092	Specification for eye-protectors for industrial and non-industrial uses
BS 2724	Specification for sun glare eye protectors for general use
BS 2738	Spectacle lenses
BS 3062	Specification for ophthalmic lens materials
BS 3162	Specification for ophthalmic trial case lenses
BS 3172	Specification for screw threads for spectacle frames
BS 3199	Method for measurement of spectacles including a glossary of terms
BS 3521	Terms relating to ophthalmic optics and spectacle frames Part 1 Glossary of terms relating to ophthalmic lenses Part 3 Glossary of terms and symbols relating to contact lenses
BS 3668	Specification for red and green filters used in ophthalmic dichromatic and dissociation tests
BS 4110	Specification for eye-protectors for vehicle users
BS 4274	Specification for test charts for determining distance visual acuity
BS 6625	Specification for spectacle frames
BS 6903	Specification for graduated dial scales for ophthalmic instruments
BS 7017	Specification for reference wavelengths for optics and optical instruments
BS 7208	Contact lenses
BS 7394	Complete spectacles
BS 7522	Low vision aids
BS EN ISO 7998	Optics and optical instruments — Spectacle frames — Vocabulary and lists of equivalent terms
BS ISO 11380	Optics and optical instruments — Formers

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover.

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

Section 1. General terms and styles

No.	Term	Definition
1.1 General terms		
21 101	spectacles	Optical appliance comprising lenses and a <i>frame</i> or <i>mount</i> with sides extending towards or over the ears.
21 102	frame	<i>Spectacles</i> or eyeglasses, considered without the lenses, having <i>rims</i> which will substantially or completely surround the lenses.
21 103	mount	(1) <i>Spectacles</i> or eyeglasses, considered without the lenses, having no <i>rims</i> or with <i>rims</i> which do not substantially surround the lenses. NOTE. The method of holding the lenses is usually by holes or slots in the lenses or by grooves in their periphery. (2) Mechanical structure that supports the lenses in magnifiers and other near-vision aids.
21 104	plastics frame¹⁾	<i>Frame</i> of which the essential parts of the <i>front</i> are made of a plastics material or of a natural material of similar properties.
21 105	metal frame¹⁾	<i>Frame</i> of which the essential parts of the <i>front</i> are made of metal.

1.2 Styles of spectacles

NOTE. See also 14.2 of BS 3521 : Part 1 : 1991.

21 201	combination spectacles	<i>Spectacles</i> in which the principal parts of the <i>front</i> of the <i>frame</i> or <i>mount</i> are made of two distinct materials, for example metal and plastics.
21 202	folding spectacles	<i>Spectacles</i> hinged at the <i>bridge</i> , and possibly in the <i>sides</i> , so as to fold into a small space.
21 203	library spectacles	<i>Spectacles</i> of heavy weight with broad <i>sides</i> and usually of plastics or natural material with similar properties.
21 204	rimless spectacles	<i>Spectacles</i> without <i>rims</i> , the lenses being held in position by screws, keys, clamps or similar devices.
21 205	browbar spectacles	<i>Rimless spectacles</i> in which the <i>bridge</i> and <i>joints</i> are connected by bars substantially following the tops of the lenses.
21 206	Supra spectacles	<i>Spectacles</i> in which the lenses are held in position by thin bands or cords attached to the <i>rims</i> .
21 207	Windsor spectacles	<i>Spectacles</i> having a <i>metal frame</i> and a thin channelled plastics <i>rim</i> covering the eyewire.

¹⁾As defined in BS EN ISO 7998 : 1996

No.	Term	Definition
1.3 Miscellaneous		
21 301	monocle	Single lens, with or without a <i>frame</i> or <i>mount</i> , designed to be held between the brow and the cheek.
21 302	clip-on grab front	Attachment holding an auxiliary lens or lenses in front of <i>spectacles</i> by spring action or by means of hooks.
21 303	lorgnette	Eyeglasses for occasional use, held before the eyes by a handle into which the lenses may fold when not required.

Section 2. Nomenclature of parts

No.	Term	Definition
2.1 General terms		
NOTE. See 3.1 and 3.2 in BS EN ISO 7998 : 1996.		
22 101	front	The part of the <i>frame</i> or <i>mount</i> comprising the <i>bridge</i> , <i>rims</i> (if any), <i>joints</i> and/or <i>lugs</i> .
22 102	bridge	That part of the <i>front</i> which forms the main connection between the lenses or <i>rims</i> . NOTE. The <i>bridge</i> assembly is generally taken to include the <i>pads</i> , if any.
22 103	brace bar	A strengthening bar joining the <i>rims</i> , additional to the main <i>bridge</i> .
22 104	rim	That part of the <i>frame</i> or <i>mount</i> which partly or completely surrounds the lens.
22 105	pad	An extension of, or attachment to, the <i>bridge</i> or the <i>rim</i> to bear on the nose.
22 106	joint	The hinge linking the <i>side</i> and the <i>front</i> . (See also 3.2.)
22 107	lug	An extension at each end of the <i>front</i> to which the <i>joint</i> or <i>side</i> is attached. NOTE. Various types of <i>lugs</i> are designated by the terms: mitred lug, overhang lug, radiused lug, <i>swept-back lug</i> , wrap-round lug, etc. See 3.5.3 in BS EN ISO 7998 : 1996 where these are illustrated. (See also 22 505.)
22 108	swept-back lug	Swept-back extension of the <i>front</i> to which the <i>side</i> is attached. (See 26 411.)
22 109	side	An extension of, or attachment to, the <i>front</i> passing towards or over the ear.
22 110	groove	Channel in the <i>rim</i> or <i>eyewire</i> intended to retain the lens.

2.2 Bridges

Group a. Types of plastics bridges

NOTE. See 3.1 in BS EN ISO 7998 : 1996.

22 211	saddle bridge	A <i>bridge</i> so shaped as to rest on the nose over a continuous area, but in which the ends of the bearing surface extend to lie behind the <i>back plane of the front</i> . NOTE. This term encompasses <i>regular bridge</i> , <i>flush bridge</i> and <i>inset bridge</i> .
22 212	regular bridge	A <i>bridge</i> without <i>pads</i> designed to rest on the nose over a continuous area.
22 213	flush bridge	A <i>regular bridge</i> with zero projection. (See 26 116.)
22 214	inset bridge	A <i>regular bridge</i> so shaped that its bearing surface is wholly behind the <i>back plane of the front</i> .

No.	Term	Definition
22 215	pad bridge	A <i>bridge</i> having two specific and limited nasal bearing areas.
22 216	keyhole bridge	A <i>bridge</i> , with <i>pads</i> , shaped like the outline of the upper part of a keyhole.

Group b. Types and parts of non-pad bridges

22 221	arch	The main curve of a <i>bridge</i> forming the bearing surface.
22 222	crest	The central portion of the <i>arch</i> .

Group c. Parts of pad bridges

22 231	rigid pad	A <i>pad</i> formed on, or rigidly attached to, the <i>bridge</i> or the <i>rim</i> .
22 232	rocking pad	A <i>pad</i> attached by a form of hinge or toggle, allowing some self-adjustment.
22 233	pad arm¹⁾	An extension, either integral with the <i>bridge</i> or as a separate attachment, to which a <i>pad</i> is fitted.
22 234	pad insert	A piece of metal that is placed inside a plastics <i>pad</i> during its manufacture to give the pad rigidity in use.
22 235	pad stud¹⁾	A protrusion from the <i>pad</i> , usually part of the <i>pad insert</i> , used to fasten the <i>pad</i> to the arm.
22 236	twinned pad¹⁾	A pair of <i>rocking pads</i> joined together to form a type of <i>saddle bridge</i> .
22 237	insert bridge	A plastics <i>bridge</i> fitted to supplement the <i>bridge</i> of an otherwise <i>metal frame</i> .

2.3 Joints

Group a. Types of joints

22 301	high joint	<i>Joint</i> positioned substantially above the <i>centre line</i> .
22 302	low joint	<i>Joint</i> positioned substantially below the <i>centre line</i> .
22 303	central joint	<i>Joint</i> positioned on or near the <i>centre line</i> .
22 304	surface joint²⁾	<i>Joint</i> comprising plates, a <i>charnier</i> and a pivot mounted on the inside surfaces of <i>front</i> and <i>sides</i> by means of which the <i>side</i> hinges on the <i>front</i> .
22 305	recessed joint²⁾	<i>Joint</i> comprising a <i>charnier</i> and a pivot mounted on plates which have been inset into the inside surfaces of <i>front</i> and <i>sides</i> .

¹⁾See 3.4 in BS EN ISO 7998 : 1996.

²⁾See 3.5.2 in BS EN ISO : 1996.