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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 18746-2015**

Replacing GB/T 18746-2002

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**Zipper terminology**

拉链术语

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### Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 18746-2002 Zipper terminology. The main changes with respect to GB/T 18746-2002 are the following: Clause 3 of the old edition, on zipper types, has become Clause 4 of the new edition, and Clause 4 of the old edition, on the kinds of zipper, has become Clause 3 of the new edition; the definition of the metal zipper has been revised; the English name of the plastic zipper has been revised; the English equivalents of the corded and cordless nylon zippers have been revised; an illustration of the cordless nylon zipper has been added; the definitions of the open-end zipper, the one-way open-end zipper and the two-way open-end zipper have been revised; definitions of the ring-shaped closed-end zipper and the ring-shaped open-end zipper have been added; the definition of the element chain has been deleted; the definition of the tape has been revised; the definition of the bead has been revised; the classification of slider bodies has been revised; a definition of the semi-autolock slider has been added; definitions of further components have been added, namely the pull hook, the spring plate, the cap, the pivot pin and the puller spring; a definition of the two-way open-end insert pin tube has been added; the name of the tape end has been revised; the "6 Zipper size specification and model" of the old edition has become "6 Zipper model, specification and size"; the definition of the zipper model has been revised; the definitions of the zipper specification, the meshing width of the element chain and the thickness of the chain have been revised; definitions of the lengths of the ring-shaped closed-end and open-end zippers have been added; definitions of further zipper dimensions have been added, namely the element tooth height, the element pitch,

the slider mouth width and the slider mouth height; a definition of the single top stop strength of the open-end zipper has been added; and a definition of the pin slippage strength has been added.

This standard is under the jurisdiction of the National Technical Committee on Hardware Products of Standardization Administration of China (SAC/TC 174).

The organisations responsible for drafting this standard are Shenzhen Huashengda Zipper Co., Ltd. and Fujian Xunxing Zipper Technology Co., Ltd.

The previous edition of the standard replaced by this standard is GB/T 18746-2002.

## 1 Scope

China's national vocabulary for the zipper. China makes the great majority of the world's zippers, and a zipper is bought to a description: a garment maker orders a nylon closed-end zipper of a given size with an auto-lock slider, and everyone in the chain has to understand the same thing by those words. Without an agreed vocabulary the specification does not survive the journey from the buyer to the factory floor, and the disputes that follow are about words rather than about quality. This standard fixes the specialist nouns for zippers - the kinds, the types, the components, the models, the specifications, the dimensions and the main physical properties - each with its Chinese term, its English equivalent and its definition, and most of them illustrated. It applies to zippers of every purpose made from metal, plastic, polyester and similar materials. It is the reference for order specifications, for the product standards that cite these terms, and for the test reports that quote strength values by name. The 2015 edition swapped the order of the clauses on kinds and types, revised the definitions of the metal zipper, the open-end zipper and the tape, added definitions for the ring-shaped closed-end and open-end zippers, for the semi-autolock slider and for further slider components, and added the strength definitions for the single top stop and for pin slippage.

This standard specifies the specialist terms for zippers and for their kinds, types, components, models, specifications, dimensions and main physical properties.

This standard applies to zippers of all purposes made from metal, plastic, polyester and similar materials.

## 2 Terms

2.1 Zipper: a connecting device made up of two flexible element chain tapes that can mesh with each other (see 5.1.1) and of accessories, such as the slider (see 5.2), by which they can be repeatedly opened and closed (see Figure 1 and Figure 2).

Figure 1 names the parts of a closed-end zipper as seen from the front: the front tape end, the top stop, the elements, the slider, the tape, the bottom stop, the rear tape end and the

bead. Figure 2 does the same for an open-end zipper, naming the element chain tape, the reinforcing tape, the insert pin and the box.

### 3 Kinds

3.1 Metal zipper: a zipper whose elements are made of a metal material such as copper alloy, aluminium alloy or zinc alloy, and are fixed in an array on the bead of the tape by a process such as stamping and planting or die casting (see Figure 3).

3.2 Plastic zipper: a zipper whose elements use plastic as the main raw material and are fixed in an array on the bead of the tape by an injection moulding process.

3.2.1 Polyformaldehyde derlin zipper: a zipper whose elements are made of polyformaldehyde and are fixed in an array on the bead of the tape by an injection moulding process (see Figure 4).

3.2.2 Intensified zipper: a zipper whose elements are made of nylon material and are fixed in an array on the edge of the tape by extrusion, forming and sewing (see Figure 5).

3.3 Nylon zipper: a zipper whose elements are made of polyester monofilament by forming and similar processes and are fixed in an array on the edge of the tape.

3.3.1 W/I cord nylon zipper: a zipper whose elements are formed as a helix by winding polyester monofilament round a central cord, and are fixed in an array on the edge of the tape by sewing (see Figure 6).

3.3.2 W/O cord nylon zipper: a zipper whose elements are formed from polyester monofilament as a hollow helix and are fixed in an array on the edge of the tape by sewing (see Figure 7).

3.3.3 L-type zipper: a zipper whose elements are formed from polyester monofilament as a continuous U shape and are fixed in an array on the edge of the tape by sewing (see Figure 8).

3.3.4 Invisible zipper: a zipper whose elements are formed as a helix by winding polyester monofilament round a central cord and are fixed in an array on the tape by sewing, the tape being folded inwards and turned out so that after the slider has closed the chain neither the elements nor the sewing thread can be seen from the front (see Figure 9).

3.3.5 Weave zipper: a zipper formed in one operation by a weaving process that weaves the yarn and the polyester monofilament together (see Figure 10).

### 4 Zipper types

4.1 Finished zipper: a zipper packed, stored and sold with the piece as the unit of quantity.

4.1.1 Close-end zipper: a zipper in which the two element chain tapes cannot be completely

separated when the zipper is opened (see Figure 11).

4.1.1.1 One way close-end zipper: a closed-end zipper fitted with one slider (see Figure 11a).

4.1.1.2 Two-way C/E zipper with head-to-head sliders: a closed-end zipper fitted with two sliders which can be opened and closed back to back or facing each other, and which when the sliders open the element chain give the zipper the form of an "O" (see Figure 11b).

4.1.1.3 Two-way C/E zipper with bottom-to-bottom sliders: a closed-end zipper fitted with two sliders which can be opened and closed back to back or facing each other, and which when the sliders open the element chain give the zipper the form of an "X" (see Figure 11c).

## 5.1 Element chain tape

5.1.3 Tape: a ribbon-like fabric interwoven from cotton, chemical fibre or blended fibre materials, used to mount and fix the elements and the other zipper components; it may be divided into flat tape, wrapped-bead tape, woven-bead tape and similar kinds.

5.1.4 Bead: the linear raised part formed at the edge of the tape, used to mount and fix the elements.

## 5.2 Slider

5.2 Slider: the general name for the moving part that meshes and unmeshes the elements (see Figure 15a).

5.2.1 Slider body: the main structural component of the slider, made of metal alloy or of plastic. The slider body consists of the upper plate, the lower plate and the pull lug, the upper plate being joined into one with the lower plate through the pin. The slider body has two lead-in mouths and one meshing mouth, and at its side there is the tape slot (see Figure 15b); the meshing mouth is shown in Figure 15a.

5.2.2 Lock slider: a slider provided with a locking function (see Figure 16).

5.2.2.1 Auto lock slider: a slider provided with an automatic locking function (see Figure 16a).

5.2.2.2 Semi-autolock slider: a slider in which there is a self-locking stop at the pull lug; when the puller is flicked, the pin lock naturally engages between the elements and locks the slider, and when the puller is upright, the lock naturally lifts clear of the elements so that the slider can be moved (see Figure 16b).

5.2.2.3 Pin lock slider: a slider whose puller carries one or two safety points; when the puller is snapped down, the safety point is inserted between the elements and holds the slider fast (see Figure 16c).