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

GB 5725-2025

Replacing GB 5725-2009

Fall protection - Safety nets

坠落防护 安全网

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Classification, protection level and marking
 - 4.1 Classification
 - 4.3 Marking
- 5 Technical requirements
 - 5.1 Structural design
 - 5.1.1 Twisted woven safety net
 - 5.1.2 Brushed warp knitted safety net
 - 5.1.3 Dip coated safety net
- 6 Test methods...
- 7 Marking...

1 Scope

GB 5725-2025 is the Chinese national standard on fall protection - safety nets, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 29 August 2025 by the Ministry of Emergency Management, and has been in force since 1 September 2026. Classification: ICS 13.340.99, CCS C73. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the classification marking, technical requirements, identification and information to be provided by the manufacturer for safety nets, and describes the corresponding test methods. This document is applicable to safety nets, in industries such as construction, water conservancy, highways, electricity, shipbuilding, chemicals, mining, ports, and amusement parks, which are used to prevent persons or objects from falling, restrict persons' activities, and block particles and vision during construction and equipment and facility operation. This document does not apply to safety nets used during emergency rescue and fire operations.

2 Normative references

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

GB/T 5455-2014, Textiles - Burning behaviour - Determination of damaged length, afterglow time and afterflame time of vertically oriented specimens

GB/T 8834, Fibre ropes - Determination of certain physical and mechanical properties

GB/T 10125, Corrosion tests in artificial atmospheres - Salt spray tests

GB/T 12903-2008, Personal protective equipment terminology

GB/T 14522, Artificial weathering test method for plastics, coating and rubber materials used for machinery industrial products - Fluorescent UV lamps

GB/T 14645, Textiles - Burning behaviour - 45° test determination of damaged area and ignition times

GB/T 21292, Fishing nets - Determination of mesh breaking force of netting

3 Terms and definitions

For the purpose of this document, the following terms and definitions, as well as those given in GB/T 12903-2008, apply.

3.1 safety nets Nets used to prevent personnels (or objects) from falling, reduce injuries from falling, restrict the movement of personnels (or objects), or block particles such as dust and sight.

3.2 horizontal safety nets Safety nets whose mounting surface is not perpendicular to the horizontal plane.

3.3 vertical safety nets Safety nets whose mounting surface is perpendicular to the horizontal plane.

3.4 knot Structure for fixing the relative position of the net ropes and the shape of the mesh, which is formed by the net ropes being intertwined and squeezed against each other under tension.

3.5 round button with hole Ring-shaped button with a hole in the middle, on the safety nets, which is made of metal or other hard materials.

3.6 border ropes Ropes connected to the net body along the edge of the net body.

3.7 tie ropes trapezoidal method tearing stress The maximum tensile force measured when

a trapezoidal test sample is torn when it is stretched.

Note. The unit of trapezoidal method tearing stress is Newton (N).

4.1 Classification

4.1.1 Classification by usage Safety nets are divided into the following categories according to different usages. -- Horizontal safety nets; -- Vertical safety nets.

4.1.2 Classification by manufacturing process Safety nets are divided into the following categories according to different manufacturing processes. -- Twisted woven safety net; -- Brushed warp knitted safety net; -- Dip coated safety net. Note

1. Twisted woven safety nets are made of natural fibers (such as cotton and linen) or synthetic fibers (such as nylon, vinylon, polyester, aramid, etc.) as raw materials using a multi-strand twisted rope making process combined with manual or mechanical weaving technology. Note

2. Brushed warp knitted safety nets are made of synthetic materials [such as high-density polyethylene (HDPE), linear low-density polyethylene (LLDPE), polypropylene (PP), polyamide (PA), etc.] as raw materials. It is made into high-strength monofilament through processes such as melt extrusion and stretching, and then processed into shape through multiple processes such as weaving, cutting, sewing and riveting on a warp knitting machine. Note

3. Dip coated safety nets are made of synthetic fiber cloth (such as polyester, nylon, aramid) or metal wire mesh as the raw materials. Through an impregnation process, functional coatings such as resin, flame retardant, and antistatic agent are penetrated into the interior of the net body fibers. After high-temperature curing, a dense coating is formed. The nets are then processed and shaped through cutting, sewing, and riveting.

4.2 Protection level Safety nets are divided into the following protection levels according to the hanging method and protection function. -- Grade SI safety net. adopting horizontal hanging method to form a buffer barrier after the personnel or object falls, so that the personnel or object is suspended inside the net body to avoid collision with the work platform or the ground; -- Grade SII safety net. using horizontal hanging method to prevent THE personnel or object from falling; -- Grade CI safety net. adopting vertical hanging method to limit the working area of personnel or prevent object from exceeding the preset use range, with the function of restraining the boundaries of dangerous areas and the movement trajectory of objects. -- Grade CII safety net. adopting vertical hanging method to block dust and other particles and vision, with the function of blocking dust and other particles and visual shielding. Note

1. Grade SI safety nets are usually used in high-rise building construction, bridge construction protection, industrial equipment maintenance platform and other work

scenarios where personnels or objects may fall from heights. Note

2. Grade SII safety nets are usually used in work scenarios where there is a risk of personnels or objects falling, such as facade protection, pipe shafts, elevator shafts, and edge protection of aerial work platforms. Note

3. Grade CI safety nets are usually used to isolate dangerous work areas, fence amusement facilities, restrict unauthorized entry, and prevent personnels or objects from exceeding the safe operating range. Note

4. Grade CII safety nets are usually used in work scenarios such as dust control in construction sites, mine blasting operations, blocking the spread of high-temperature metal dust, and preventing strong light from interfering with the operator's vision.

4.3 Marking

4.3.1 Marking of usage The usage of the safety nets is marked as. -- Horizontal safety nets are represented by the letter P; -- Vertical safety nets are represented by the letter L.

4.3.2 Marking of manufacturing process The manufacturing process of the safety nets is marked as. -- Twisted woven safety nets are represented by the letters BZ; -- Brushed warp knitted safety nets are represented by the letter JB; -- Dip coated safety nets are represented by the letters TF.

4.3.3 Marking method The marking of safety net products consists of four parts. usage, manufacturing process, product specifications and dimensions, and grade. Example

1. Flame retardant safety net, horizontal hanging, twisted woven, 3 m wide, 6 m long, for preventing personnels or objects from sustained falling, P-BZ-3x6 SI, flame retardant.

Example

2. Non-flame retardant safety net, horizontal hanging, twisted woven, 4 m wide, 8 m long, for preventing personnels or objects from sustained falling, P-BZ-4x8 SI. Example

3. Safety net, horizontal hanging, twisted woven, 2 m wide, 2 m long, for preventing personnels or objects from falling, P-BZ-2x2 SII. Example

4. Safety net, vertical hanging, dip coated, 2 m wide and 6 m long, for preventing personnels or objects from exceeding a preset range, L-TF-2x6 CI. Example

5. Safety net, vertical hanging, brushed warp knitted,

1.8 m wide, 6 m long, for preventing particulate matter and vision, L-JB-1.8x6 CII.

Note. Twisted woven safety nets are divided into flame retardant and non-flame retardant types. Flame retardant products have the word "flame retardant" clearly indicated in the classification mark. Brushed warp knitted and dip coated safety nets are all flame retardant products, so the word "flame retardant" is no longer marked.