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QB

**LIGHT INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

QB/T 4043-2010

Polyvinyl chloride artificial leather for automotive

汽车用聚氯乙烯人造革

(English Translation)

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1 Scope

This standard specifies the terms and definitions, classification, requirements, test methods, inspection rules, marking, packaging, transportation, storage of polyvinyl chloride (PVC) artificial leather for automobiles (hereinafter referred to as "artificial leather").

This standard applies to PVC artificial leather for automobiles, which is made from polyvinyl chloride resin as the main raw material, with the addition of plasticizers and other additives, using knitted or plain woven fabric as the base material through processes such as calendaring or coating. It is mainly used for automotive interior parts.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 250-2008 Textiles - Tests for color fastness - Grey scale for assessing change in color (idt ISO 105-A02:1993)

GB/T 625-2007 Chemical reagent - Sulfuric acid

GB/T 629-1997 Chemical reagent - Sodium hydroxide

GB/T 676-2007 Chemical reagent - Acetic acid

GB/T 1040.1-2006 Plastics - Determination of tensile properties - Part 1.General principles (idt ISO 527-1.1993)

GB/T 1040.3-2006 Plastics - Determination of tensile properties - Part 3.Test conditions for films and sheets (idt ISO 527-3.1995)

GB/T 1263-2006 Chemical reagents - Disodium hydrogen phosphate dodecahydrate

GB/T 1266-2006 Chemical reagents - Sodium chloride

GB/T 2410-2008 Determination of the luminous transmittance and haze of transparent plastics information products

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1

Stretch

Under specified test conditions, the elongation deformation of the product resulting from the application of a constant load in the longitudinal (or transverse) direction of the specimen for a constant time, which is recorded and expressed as a percentage.

3.2

Set

For specimens after stretch testing, after the load is removed and the specimens are stored at room temperature for a certain period to allow for shrinkage, the residual deformation that cannot be recovered after elongation, which is recorded and expressed as a percentage.

3.3

Seam strength

Under specified test conditions, a longitudinal tensile force perpendicular to the seam is applied to the specimen, until the sewn artificial leather breaks (the test endpoint can also be determined by the breakage of the sewing thread or the slippage of the sewing thread in the artificial leather causing the seam to crack). The maximum load value is recorded as the seam strength, expressed in Newtons (N).

3.4

Seam fatigue resistance

Under specified test conditions, the sewn specimen is placed in a tensile fatigue testing machine; a tensile-relaxation process is repeatedly applied to the specimen at a fixed operating frequency. After a certain number of operating cycles, the specimen is kept in the testing machine; the size of the seam needle hole is measured under the original load in a static state. This measurement result is the seam fatigue resistance, expressed in millimeters (mm).

3.5

Standard sample

A sample approved by the customer or having an equivalent effect.

4 Classification

4.1

Products are classified according to fabric structure, total thickness, main use, as shown in Table 1.

4.2

Each product category is further divided into general-purpose and cold-resistant types.

5.1 Specifications

5.1.1

The thickness, width, length, unit area mass tolerances of the product shall conform to the requirements in Table 2.

5.1.2

The total length, number of segments, minimum segment length per roll shall conform to the provisions of Table 3.

5.2 Appearance

It shall conform to the requirements of Table 4.

6.1 Specimen cutting

Specimens shall be prepared in accordance with the provisions of 5.1 in GB/T 8948-2008. When multiple sets of specimens are required for the same test, the specimens shall, in principle, be cut evenly along the transverse direction. The specimen dimensions, quantity, numbering are shown in Table 6.

6.2 Standard environment for specimen conditioning and testing

The specimens shall be conditioned in accordance with GB/T 2918-1998 within a standard environment of 23/50 and within the general deviation range for a period of not less than 4 hours; the test shall be conducted under these conditions.

6.3.1 Thickness

It is performed according to Article 5.4.1 of GB/T 8948-2008.

6.3.2 Width

It is performed according to Article 5.3 of GB/T 8948-2008. Take the minimum value, accurate to 1 mm.

6.3.3 Length

It is performed according to Article 5.5 of GB/T 8948-2008. Take the result accurate to 1 cm.

6.3.4 Mass per unit area

It is performed according to FZ/T 60003-1991. Use the specimen 1# from Table 6.

6.4.1.1 Illumination conditions

- a) Use a milky white fluorescent tube as the light source.
- b) Ensure the illuminance on the effective inspection surface is at least 1000 lx.
- c) Use the same light source throughout the inspection process.

6.4.1.2 Test procedure

The specimen is held 40 cm from the tester's eyes. Visual inspection is performed compared to the standard sample.

6.4.2.1 Test instruments

The test instrument shall meet the requirements of Chapters 4 ~ 7 of GB/T 3979-2008, using an integrating sphere spectrophotometer.

6.4.2.2 Standard illuminator

The standard illuminator shall meet the requirements of Chapter 4 of GB/T 3978-2008, using D65.