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

FZ/T 54008-2012

Replacing FZ/T 54008-1999

**Polypropylene drawn yarns
(English Translation)**

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Product classification and identification

5 Technical requirements

5.1 Product Classification

5.2 Physical performance indicators

6 Elongation at break coefficient of variation (CVb) /% ≤ 15.00 17.00 - - -

9 Cylinder weight/kg $\geq$ fixed length or fixed weight - -

Foreword

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

This standard is a revision of FZ/T 54008-1999.

This standard replaces FZ/T 54008-1999 "Polypropylene Drafting Wire", compared with the original standard, except for editorial changes, the main technical changes as follows.

--- Expanded the scope of application of the standard (see Chapter 1, Chapter 1 of the 1999 edition);

--- Supplementary normative references (see Chapter 2, Chapter 2 of the 1999 edition);

--- Added a chapter on product classification and identification (see Chapter 4);

---The product grade is changed from the original superior product, first-class product, second-class product, third-class product, four grades to superior products, first-class products, and qualified products.

Level (see Chapter 5, Chapter 3 of the 1999 edition);

--- According to the three levels of settings, the corresponding level indicators have been modified (see Chapter 5, Chapter 3 of the 1999 edition);

---Elongation at break, from the current standard of $M1 \pm 7\%$ (excellent), $M1 \pm 10\%$ (first-class), $M1 \pm 13\%$ (second-class), $M1 \pm 13\%$ (third grade) ($M1$ is the center value of elongation at break, determined by the user and the manufacturer), adjusted to. $M1 \pm 5.0\%$ (Excellent products), $M1 \pm 7.0\%$ (first-class products), $M1 \pm 10.0\%$ (qualified products) (see

Chapter 5, Chapter 3 of the 1999 edition);

--- Appearance indicators shall be changed from being implemented in accordance with Table 2 to be determined by the supplier and the purchaser or as specified in Appendix A (see Chapter 5, 1999).

Chapter 4 of the edition).

This standard was proposed by the China National Textile and Apparel Council.

This standard is under the jurisdiction of Shanghai Textile Industry Technical Supervision.

This standard was drafted. Changzhou Guoxing Special Chemical Fiber Co., Ltd., Shanghai Textile Industry Technology Supervision Institute, China Chemical Fiber Industry association.

1 Scope

This standard specifies the terms and definitions of polypropylene drawn yarn, product identification, technical requirements, test methods, inspection rules, signs, packaging, and transportation.

Requirements for transportation and storage.

This standard applies to bus density 33.3dtex~333dtex, monofilament linear density 1.0dtex~6.0dtex, circular cross section, light, half Extruded, fully matt, natural and colored textiles with polypropylene draw yarns, other types of polypropylene draw yarns can be used as reference.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 250 Textile color fastness test for gray color card for color change GB/T 2828.1-2003 - Sampling procedures for sampling by sampling - Part 1 . Batch-to-batch inspections by Retrieving Quality of Acceptance (AQL) plan Textiles and textiles - Performance and test terms - Part 1. Fibers and yarns GB/T 3291.3 Textiles and textile materials - Performance and test terms - Part 3 GB/T 4146.1 Textile chemical fiber - Part 1. Generic name GB/T 4146.3 Textile chemical fibres - Part 3. Test terms GB/T 6502 chemical fiber filament sampling method GB/T 6504 chemical fiber oil content test method GB/T 6505 chemical fiber filament heat shrinkage test method GB/T 8170 Numerical Rounding Rules and Representation and Determination of Limit Values GB/T 14343 chemical fiber filament density test method GB/T 14344 Test method for tensile properties of chemical fiber

filaments

3 Terms and definitions

The terms and definitions defined in GB/T 3291.1, GB/T 3291.3, GB/T 4146.1 and GB/T 4146.3 apply to this document.

4 Product classification and identification

4.1

According to the content of titanium dioxide, the product can be divided into light wire, semi-dull wire and full extinction wire.

4.2

Product specifications are expressed in terms of bus density (dtex) and number of filaments (f).

Example. A polypropylene drawline with a bus density of 83 dtex and a number of filaments of 48, with a product specification of 83 dtex/48f.

4.3

Product model is marked according to product specifications and production process.

Example. 83dtex/48f polypropylene FDY.

5.1 Product Classification

The polypropylene drawn yarn products are divided into three grades. superior grade, first grade, and qualified grade, and the lower grade is lower than the qualified one.

5.2 Physical performance indicators

See Table 1.

Table 1 Physical properties of polypropylene drawn yarn

Serial number item

First-class quality products Natural, colored, natural, colored,,

1 Linear density deviation rate /% ± 2.0 ± 2.0 ± 3.5 ± 3.5 ± 4.5 ± 4.5

2 Linear density coefficient of variation (CVb) /% ≤ 1.50 2.00 3.00 3.50 4.00 4.50 3
breaking strength/(cN/dtex) ≥ 3.80 3.50 3.50 3.30 3.40 3.20 4 coefficient of variation of
breaking strength (CVb) /% ≤ 6.00 6.00 10.00 10.00 12.00 12.00

5 Elongation at break /% $M1 \pm 5.0$ $M1 \pm 5.0$ $M1 \pm 7.0$ $M1 \pm 7.0$ $M1 \pm 10.0$ $M1 \pm 10.0$

6 Elongation at break coefficient of variation (CVb) /% ≤ 15.00 17.00

- - - -

7 boiling water shrinkage rate /% $M2b \pm 1.0$ $M2 \pm 1.0$ $M2 \pm 1.5$ $M2 \pm 1.5$ $M2 \pm 1.8$ $M2 \pm 1.8$

8 oil content /% $M3c \pm 0.50$ $M3 \pm 0.60$ $M3 \pm 0.70$

9 Cylinder weight/kg ≥ fixed length or fixed weight - -

aM1 is the central value of elongation at break, generally selected within the range of 20% to 36%, which is determined by the manufacturer and the customer, and shall not be arbitrarily determined once determined.

change.

bM2 is the central value of boiling water shrinkage rate, $M1 \leq 10\%$, which is determined by the manufacturer and the customer. Once determined, it shall not be changed arbitrarily.

cM3 is the central value of oil content, between 0.8% and 1.3%, which is determined by the manufacturer and the customer. Once determined, it shall not be arbitrarily changed.

5.3 Appearance inspection items and indicators it shall be determined by the supplier and the buyer in consultation or in accordance with the provisions of Appendix A.

6 Test methods

6.1 Physical property and dyeing performance index test

6.1.1 The linear density test shall be carried out in accordance with the provisions of GB/T 14343.

6.1.2 The breaking strength and elongation at break test shall be carried out in accordance with GB/T 14344.

6.1.3 The boiling water shrinkage test shall be carried out in accordance with the provisions of GB/T 6505.

6.1.4 The oil content test shall be carried out in accordance with the provisions of GB/T 6504, and the extraction method shall be adopted during arbitration.

6.1.5 Bar weight test The quality of the package is weighed out by weighing scales, electronic scales, etc., with a suitable weighing range, deducting the known skin quality, the net mass.

It is the weight of the barrel, accurate to 0.5%, and recorded.

6.2 Appearance inspection

6.2.1 Equipment