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

FZ/T 54074-2014

**Polypropylene monofilament
(English Translation)**

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Foreword

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

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. Zhejiang Yuta Filter Materials Technology Co., Ltd., Wuxi Jintong Chemical Fiber Co., Ltd., Shanghai Duwei Chemical Fiber Co., Ltd.

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1 Scope

This standard specifies the terms and definitions, classification and identification of polypropylene monofilament, technical requirements, test methods, inspection rules and signs, packaging, transportation Requirements for transportation and storage.

This standard applies to a line density of 9.0dtex~7111.0dtex, corresponding to a circle with an equivalent diameter of 0.036mm~1.000mm.

Polypropylene monofilament with a cross-section and a profiled cross section. Other polypropylene monofilaments can be used as reference.

Note: Refer to Appendix A for the conversion formula of polypropylene monofilament linear density and corresponding monofilament equivalent diameter.

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 2828.1-2012.Sampling procedures for counting sampling - Part 1. Quantitative inspection by batches 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 6503 chemical fiber moisture regain test 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 FZ/T 50002 chemical fiber profile test method

3 Terms and definitions

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

Monofilament equivalent diameter equivalent diameter of monofilament the diameter of a circular cross-section yarn corresponding to the same linear density monofilament.

4.1 Product Classification

4.1.1

Fine denier type. the nominal linear density is 9.0dtex~72.0dtex; the corresponding single filament equivalent diameter is 0.036mm~0.100mm.

4.1.2

Medium-denier type. the nominal linear density is >72.0dtex~446.5dtex; the corresponding monofilament equivalent diameter is >0.100mm~0.250mm.

4.1.3

coarse denier. the nominal linear density is >446.5dtex~7111.0dtex; the corresponding monofilament equivalent diameter is >0.250mm~1.000mm.

4.2 Product Identification

4.2.1

Fine denier and medium denier. expressed in terms of linear density and equivalent monofilament diameter. The linear density unit is dtex; the monofilament equivalent diameter the unit is millimeter (mm).

Example. The linear density is 55.5 dtex, corresponding to a monofilament equivalent diameter of 0.088 mm, and its product specification is expressed as 55.5 dtex/1f (0.088 mm).

4.2.2

Coarse denier. expressed in equivalent diameter of the corresponding monofilament. The monofilament equivalent diameter unit is in millimeters (mm).

Example. The corresponding monofilament equivalent diameter is 0.331 mm, and the product specification is expressed as 0.331 mm/1f.

4.2.3

Products are identified by product specifications and production processes.

Example. 55.5dtex/1f (0.088mm) has light, of which 55.5dtex represents the linear density of the wire, 0.088mm represents the equivalent diameter of the monofilament, and 1f represents a single Silk, light means great light.

5.1 Product Classification

Polypropylene monofilament products are divided into three grades. superior grade, first grade, and qualified grade, which are lower than qualified products.

5.2 Performance Projects and Indicators

See Table 1.

5.3 Appearance Projects and Indicators

Can be based on agreement between the supplier and the purchaser or according to Appendix B.

5.4 Shaped cross-section shapes and indicators

Determined by the supply and demand sides.

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6.1 Linear density test

Execute according to GB/T 14343, where.

--- Fine denier and medium denier, using skein method, sample length 100m;

---Coarse denier, using skein method, sample length 50m.

6.2 Test of breaking strength and elongation at break

Execute according to GB/T 14344.

6.3 Thermal Shrinkage Test

Execute according to GB/T 6505. The test temperature for dry heat shrinkage is recommended $(120 \pm 3)^\circ \text{C}$ for 15 min.