

ICS 59.060.20
CCS W 52

FZ

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

FZ/T 54007-2019

**Polyamide 6 drawn textured yarns
(English Translation)**

Issued on: May 2, 2019

Implemented on: November 1, 2019

**Issued by: Ministry of Industry and Information Technology of the
People's Republic of China**

Table of Contents

Foreword...	3
1 Scope...	4
2 Normative References...	4
3 Terms and Definitions...	5
4 Classification and Identification...	5
5 Technical Requirements...	5
6 Test Methods...	7
7 Inspection Rules...	8
8 Marking, Packaging, Transportation and Storage...	10
Appendix A (normative) Appearance Requirements, Inspection and Assessment...	11

1 Scope

This Standard specifies the terms and definitions, classification and identification, technical requirements, test methods, inspection rules, and the requirements for marking, packaging, transportation and storage of polyamide 6 drawn textured yarns.

This Standard is applicable to drawn textured yarns processed from polycaprolactam as the raw material, and with a linear density range of 7 dtex ~ 450 dtex; glossy, semi-dull and full-dull polyamide 6 drawn textured yarns with a monofilament linear density of 0.4 dtex ~ 5.0 dtex, and a round cross section.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 250 Textiles - Tests for Color Fastness - Grey Scale for Assessing Change in Color

GB/T 2828.1-2012 Sampling Procedures for Inspection by Attributes - Part 1.Sampling

Schemes Indexed by Acceptance Quality Limit (AQL) for Lot-by-lot Inspection

GB/T 3291.1 Textiles - Terms of Textile Material Properties and Test - Part 1.Fiber and Yarn

GB/T 3291.3 Textiles - Terms of Textile Material Properties and Test - Part 3.General

GB/T 4146 (all parts) Textiles - Man-made Fibers

GB/T 6502 Sampling Method of Man-made Filament Yarns

GB/T 6503 Man-made Fibers - Test Method of Moisture Regain

GB/T 6504 Man-made Fiber - Test Method for Oil Content

GB/T 6506 Synthetic Fiber - Test Method for Crimp Contraction Properties of Textured Filament Yarns

GB/T 8170-2008 Rules of Rounding off for Numerical Values & Expression and Judgement of

Limiting Values

GB/T 14343 Testing Method for Linear Density of Man-made Filament Yarns

GB/T 14344 Testing Method for Tensile of Man-made Filament Yarns

GB/T 14345 Testing Method for Twist of Man-made Filament

FZ/T 50001 Test Method for Interlacing Degree of Synthetic Filament Yarns

FZ/T 50008 Test Method for Dyeing Uniformity of Polyamide Filament Yarns

FZ/T 50027 Man-made Fibers - Test Method for Determination of the Titanium Dioxide Content

3 Terms and Definitions

The terms and definitions defined in GB/T 3291.1, GB/T 3291.3 and GB/T 4146 (all parts) and the following are applicable to this document.

3.1

ossified filament

A certain segment of the filament appears in the shape of a bamboo, with single fibers adhering to each other, with thin stripes, or forming a stiff and shiny filament that lacks curl elasticity and fluffiness. The one with a length exceeding 2 mm is collectively referred to as ossified filament.

3.2

tight speck

The twist of the filament is locally concentrated, the segmented filament appears intermittently on the filament, and the length is less than 2 mm. Its synonym is small ossified filament.

4 Classification and Identification

4.1

In accordance with the amount of titanium dioxide added during production, the products can be classified into glossy, semi-dull and full-dull yarns.

4.2

Product specifications are identified by linear density (dtex) and the number of filaments (the number of spinneret holes f).

Example 1.78 dtex/48 f.

Example 2.ply yarn representation 78 dtex/48 f x 2.

4.3

Product identification shall include. product specifications, color, product name or batch No., which can be effectively distinguished.

5.1 Product Grading

Products are divided into three grades. superior products (AA), first-class products (A) and Determined through negotiation between the supply-side and the demand-side, or in accordance with the requirements of Appendix A.

6.1 Linear Density Test

Comply with the provisions of GB/T 14343.

6.2 Tensile Property Test

Comply with the provisions of GB/T 14344.

6.3 Crimp Contraction and Crimp Stability Test

Comply with the provisions of GB/T 6506.

6.4 Oil Content Test

Comply with the provisions of GB/T 6504.

6.5 Intertwining Degree Test

Comply with the provisions of FZ/T 50001. During arbitration, adopt Method A. manual needle movement method.

6.6 Dyeing Uniformity Test

Comply with the provisions of FZ/T 50008.

6.7 Compound Twist Degree

Comply with the provisions of GB/T 14345.

6.8 Appearance Inspection

Comply with the provisions of Appendix A, or as agreed between the supply-side and the demand-side.

6.9 Titanium Dioxide Content

Comply with the provisions of FZ/T 50027.

6.10 Moisture Regain Rate

Comply with the provisions of GB/T 6503.

7.1 Inspection Items

7.1.1

The items in Table 1 are all assessment items.

7.1.2

The appearance inspection items shall comply with the provisions of 5.4.

7.2 Batch Grouping Rules

Within a certain range, adopt periodic sampling to constitute inspection batches. A production batch can consist of one inspection batch or several inspection batches.

7.3 Sampling Rules

7.3.1

The laboratory samples for each item test in Table 1 shall be sampled in accordance with GB/T 6502. Among them, full sampling shall be carried out for the dyeing uniformity test.

7.3.2

The sampling for appearance inspection shall be conducted barrel by barrel.