ICS 83.140.99
CCS G 47

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 30312-2025

Replacing GB/T 30312-2013

Test method for thermal shrinkage of dipped yarns and cords

浸胶纱线、线绳和帘线热收缩试验方法

Issued on: August 1, 2025 **Implemented on: February 1, 2026**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 30312-2013 "Test method for thermal shrinkage of dipped yarn, cord and cord" and is in line with GB/T 30312-2013 Compared with the previous version, in addition to result adjustments and editorial changes, the main technical changes are as follows.

a) The scope has been changed (see Chapter 1, Chapter 1 of the 2013 edition);

b) Added terms and definitions (see Chapter 3);

c) Added sample preparation device and requirements (see 5.3);

d) The test environment has been changed (see 6.1, 5.1 of the 2013 edition);

e) Sampling has been changed (see 6.3, 5.3 of the 2013 edition);

f) The number of tests has been changed (see 6.4, 5.4 of the 2013 edition);

g) The test conditions have been changed (see 6.5, 5.5 of the 2013 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Rubber and Rubber Products of Standardization (SAC/TC35).

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2013 as GB/T 30312-2013;

- This is the first revision.

1 Scope

This document describes the test method for dry heat shrinkage and dry heat shrinkage force in hot air of dipped yarns, cords and cords.

This document is applicable to the test of dry heat shrinkage properties of dipped yarns, cords and yarns made of nylon, polyester, vinylon, aramid and rayon.

It is also applicable to the test of dry heat shrinkage properties of non-impregnated yarns, cords and cords made of the above fibers.

2 Normative references

GB/T 2941

GB/T 8170

GB/T 32110

3 Terms and Definitions

The terms and definitions defined in GB/T 32110 apply to this document.

4 Test Principle

By using a dry heat shrinkage meter or a heat cycle oven, the dipping time is measured and calculated in a constant temperature hot air.

Dry heat shrinkage under pre-tension, dry heat shrinkage force or free dry heat shrinkage of yarn, cord or cord.

5.1 Dry Heat Shrinkage Tester

5.1.1 Temperature range. room temperature ~ 250°C.

5.1.2 Temperature control accuracy. ±1°C.

5.1.3 Instrument measurement accuracy. shrinkage rate ±0.05%, shrinkage force ±0.1N.

5.1.4 Heating length. 250mm.

5.1.5 Position of the specimen in the dry heat shrinkage instrument. Under the test state, the specimen should be located in the middle between the upper and lower heating plates to ensure the test results are correct.

To ensure accurate results, the sample should not come into contact with the surface of the heating plate. The principle of the dry heat shrinkage instrument is shown in Figure 1.