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Footwear-Test methods for socks-Static compression set

鞋类 鞋垫试验方法 静态压缩变形

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Table of Contents

- Foreword
- 1 Scope
- 2 Normative reference documents
- 3 Terms and definitions
- 4 Principles
- 5 Instruments and Equipment

Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

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Test methods for footwear insoles - static compression deformation

1 Scope

This document describes a test method for static compression deformation of insoles:

This document is applicable to various microporous foam insoles with base materials such as ethylene-vinyl acetate copolymer (EVA), polyurethane (PU) foam, etc:

Determination of state compression deformation:

2 Normative reference documents

GB/T 2703

GB/T 22049

3 Terms and definitions

The terms and definitions defined in GB/T 2703 and below apply to this document: 3:1
Compression deformation compression set The sample deforms after being compressed by an external force: When the external force is removed, the geometric dimensions change in the direction of the force:

4 Principles

When the insole is compressed by an external force, its microporous foam base material will deform in the direction of the force: When the external force is removed, the microporous foam base material still cannot restore to original geometric dimensions: In this method, after the insole is statically compressed under a certain pressure and a certain period of time, the insole is produced in the direction of the force:

The geometric dimensional change rate is used to evaluate its compression deformation performance:

5 Instruments and Equipment

5:1 Static compression tester, the structural diagram is shown in Figure 1, and should meet the following requirements:

- Indenter, the diameter is $(25\pm0.5)\text{mm}$, $(30\pm0.5)\text{mm}$, $(40\pm0.5)\text{mm}$ optional, the chamfering radius of the edge of the indenter is $(1.0\pm0.25)\text{mm}$:
- Manually lift the table to realize the adjustable distance between the indenter and the test platform from 0mm to 50mm:
- The test load is $(10\pm0.1)\text{kg}$, $(15\pm0.15)\text{kg}$, $(20\pm0.20)\text{kg}$, $(25\pm0.25)\text{kg}$, $(30\pm0.30)\text{kg}$ optional:
- Testing platform, the table top is flat and has no elasticity:
- Static compression tester with constant temperature and humidity function: The temperature fluctuation of its constant temperature and humidity chamber is controlled at $\pm1^\circ\text{C}$, and the relative humidity wave Mobility is controlled at $\pm5\%$: