

ICS 83.060

CCS G 35



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46616-2025

Fluoro rubber compounds - Using for smart wearable products

氟橡胶混炼胶 智能穿戴产品用

Issued on: October 31, 2025

Implemented on: May 1, 2026

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

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Requirements

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. Please note that some content in this document may involve patents. The issuing organization of this document assumes no 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 Standardization of Rubber and Rubber Products (SAC/TC35). This document was drafted by: Guangdong Fangzhen New Materials Precision Components Co., Ltd., Shenzhen Changying Precision Technology Co., Ltd., and Jiangsu Guan Lianxin Materials Technology Co., Ltd., Sichuan Daohong New Materials Co., Ltd., Xingke Electronics (Dongguan) Co., Ltd., Zhejiang Senri Organic Silicon Materials Co., Ltd., Zhonghao Chenguang Chemical Research Institute Co., Ltd., Shandong Huaxia Shenzhou New Materials Co., Ltd., Shenyang Rubber Research and Design Institute Limited Liability Company. The main drafters of this document are: Zhang Wenjuan, Zhang Xixing, Zhang Yunhua, Lu Su, Su Huaisheng, Zhou Wugang, Gao Huiyun, Li Yanmin, Zeng Benzong, and Wu Yongqiang. Wang Hanli and Kang Xiaotian. Fluororubber compound for smart wearable products

1 Scope

GB/T 46616-2025 is the Chinese national standard covering the fluoroelastomer compound for a watch strap or a wearable seal - the hardness and mechanical properties, the resistance to sweat, cosmetics and cleaning agents, the skin contact requirements and the restricted substances. First edition, in force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026.

6. Determination of polymers by gas chromatography-mass spectrometry (GC-MS)
Polybrominated biphenyls and polybrominated diphenyl ethers in the compound

8. Gas chromatography-mass spectrometry (GC-MS) with... Determination of Phthalate

Esters in Polymers by Thermal Desorption/Temperature Desorption Gas Chromatography-Mass Spectrometry (Py/T D-GC-MS)

2.Determination of polymers by hexavalent chromium colorimetric method and Hexavalent chromium [Cr(VI)] in electronic components

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 250 Textiles - Tests for color fastness - Assessment of color change - Gray scale

GB/T 528 Determination of tensile stress-strain properties of vulcanized rubber or thermoplastic rubber

GB/T 529 Determination of tear strength of vulcanized rubber or thermoplastic rubber (trouser-shaped, right-angled and crescent-shaped specimens)

GB/T 531.1 Test methods for indentation hardness of vulcanized rubber or thermoplastic rubber-Part

GB/T 2941 General Procedures for Specimen Preparation and Conditioning in Physical Testing Methods for Rubber

GB/T 29614 Determination of Polycyclic Aromatic Hydrocarbon Content in Vulcanized Rubber

GB 31604.35 National Food Safety Standard for Food Contact Materials and Articles. Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) determination

GB/T 37861 Determination of Halogen Content in Electrical and Electronic Products by Ion Chromatography

GB/T 39560.4 Determination of certain substances in electronic and electrical products-Part 4: CV-AAS, CV-AFS, ICP-OES and ICP-MS determination of mercury in polymers, metals and electronic components

GB/T 39560.5 Determination of certain substances in electronic and electrical products-Part 5: AAS, AFS, ICP-OES and ICP-MS methods Determination of cadmium, lead, and chromium content in polymers and electronic components, as well as cadmium and lead content in metals.

GB/T 39560.6 Determination of certain substances in electronic and electrical products - Part

GB/T 39560.8 Determination of certain substances in electronic and electrical products-Part

GB/T 39560.702 Determination of certain substances in electronic and electrical products-Part 7-

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Requirements

4.1 Appearance The compounded rubber has a consistent color on both the surface and the cut surface, and no visible impurities.