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

GB/T 1040.2-2022

Replacing GB/T 1040.2-2006

**Plastics – Determination of Tensile Properties – Part 2: Test
Conditions for Moulding and Extrusion Plastics**

(ISO 527-2:2012, MOD)

塑料 拉伸性能的测定 第 2 部分：模塑和挤塑塑料的试验条件

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 *Directives for Standardization – Part 1: Rules for the Structure and Drafting of Standardizing Documents*.

This Document is Part 2 of GB/T 1040 *Plastics – Determination of Tensile Properties*, which has published the following parts:

- Part 1: General Principles;
- Part 2: Test Conditions for Molding and Extrusion Plastics;
- Part 3: Test Conditions for Films and Sheets;
- Part 4: Test Conditions for Isotropic and Orthotropic Fiber-Reinforced Plastic Composites;
- Part 5: Test Conditions for Unidirectional Fiber-Reinforced Plastic Composites.

This Document replaced GB/T 1040.2-2006 *Plastics - Determination of Tensile Properties - Part 2: Test Conditions for Moulding and Extrusion Plastics*. Compared with GB/T 1040.2-2006, the major technical changes are as follows besides the structural adjustments and editorial modifications:

- Add the 75mm gauge length of the specimen (see 5.2 of this Edition);
- Add the requirements for the accuracy of the extensometer when using different gauge lengths to determine the modulus (see 5.2 of this Edition);
- Add the inter-lab precision data in China (see B.3 of this Edition).

This Document modified and adopts ISO 527-2:2012 *Plastics – Determination of Tensile Properties – Part 2: Test Conditions for Moulding and Extrusion Plastics*.

The major technical differences and their causes between this Document and ISO 527-2:2012 are as follows:

- For the Normative References, this Document has made adjustments with technical differences to adapt to the technical conditions of China. The adjustments are reflected in Clause 2 “Normative References”. The specific adjustments are as follows:
 - Use GB/T 1040.1-2018 that equivalently adopts the international standard to replace ISO 527-1:2012;
 - Use GB/T 5471 that equivalently adopts the international standard to replace ISO 295;

- Use GB/T 9352 that equivalently adopts the international standard to replace ISO 293;
 - Use GB/T 17037.1 that modifies and adopts the international standard to replace ISO 291-1;
 - Use GB/T 37426 that modifies and adopts the international standard to replace ISO 20753;
 - Use GB/T 39812 that equivalently adopts the international standard to replace ISO 2818.
- Add the requirements for the accuracy of the extensometer when using different gauge lengths to determine the modulus (see 5.2 of this Document), which is consistent with ISO 527-1:2019.
- Add the inter-lab precision data in China as the content of B.3, so that adapt to the actual situation of China.

This Document made the following editorial modifications:

- Adjust the precision data in Tables B.1 ~ B.4 of Annex B in ISO 527-2:2012 to Tables B.6~B.9.

Please note some contents of this Document may involve patents. The issuing agency of this Document shall not assume the responsibility to identify these patents.

This Document was proposed by China Petroleum and Chemical Industry Federation.

This Document shall be under the jurisdiction of National Technical Committee on Plastics of Standardization Administration of China (SAC/TC 15).

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Chief drafting staffs of this Document: Wang Boen, Liu Lirong, Zhang Yachun, Xie Fengming, Zhang Zhongming, Liu Xiaodan, Zhao Yongchen, Xu Peng, Meng Xiangyan, Wang Huineng, Li Jianxi, Tong Wei, Zhao Lei, Mou Xiufa, Geng Jianjia, Wang Xinhua, Quan Naijia, Zhang Musheng, Wang Haili, Zhang Lei, Ye Yaoting, Guo Xia, Cheng Dong, Huang Qizhong, Guo Lingxiao, Wang Xinglian, Zhou Cheng, Zhang Mei, Yu Feng, Chen Hongyuan, Xing Jin, Zhang Yaoyue, Chen Weili, Li Xiaozeng, Guo Xi, Xing Guizheng, Shou Weidong, Qin Xinying, Zhang Cuiling, Pu Xuetao, Guo Chunyun, Song Dan, Wang Liwen, Yi Qingfeng, luan Ling, Jin Feng, Luo Chuan, Wang Xiaobing, Zhang Wei, and Liu Xuesong.

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