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

GB/T 17037.2-2020

**Plastics. Injection moulding of test specimens of thermoplastic
materials - Part 2: Small tensile bars**

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Foreword

GB/T 17037 "Preparation of Injection Molding Specimens of Plastic Thermoplastic Materials" is divided into five parts:

---Part 1: General principles and preparation of multi-purpose specimens and long strip specimens;

---Part 2: Small tensile specimen;

---Part 3: Small square test piece;

---Part 4: Determination of mold shrinkage;

---Part 5: Preparation of standard samples for anisotropy evaluation:

This part is Part 2 of GB/T 17037:

This section was drafted in accordance with the rules given in GB/T 1:1-2009:

This part uses the redrafting method to amend and adopt ISO 294-2:2018 "Preparation of Plastic Thermoplastic Material Injection Specimen No: 2

Part: Small Tensile Specimen:

The technical differences between this part and ISO 294-2:2018 and the reasons are as follows:

---Regarding normative reference documents, this section has made adjustments with technical differences to adapt to my country's technical conditions and adjustments:

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows:

* Replace ISO 294-1:2017 with GB/T 17037:1-2019 which is modified to adopt international

standards;

* Replace ISO 20753:2018 with GB/T 37426-2019, which is modified to adopt international standards:

This part was proposed by the China Petroleum and Chemical Industry Federation:

This part is under the jurisdiction of the National Plastics Standardization Technical Committee (SAC/TC15):

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1 Scope

This part of GB/T 17037 specifies a four-cavity mold, that is, a C-type GB /ISO mold, which is used for injection molding of small tensile specimens:

The sample size is $\geq 60\text{mm} \times 10\text{mm} \times 3\text{mm}$ (GB/T 37426-2019 small and medium tensile sample CW13 type):

This section applies to the preparation of reproducible small tensile specimens by injection molding of thermoplastic materials:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article

Pieces: For undated references, the latest version (including all amendments) applies to this document:

GB/T 17037:1-2019 Preparation of injection molded specimens of plastic thermoplastic materials Part 1: General principles and multi-purpose tests

Preparation of samples and long strip samples (ISO 294-1:2017, MOD)

GB/T 37426-2019 plastic sample (ISO 20753:2018, MOD)

3 Terms and definitions

The terms and definitions defined in GB/T 17037:1-2019 apply to this document:

Note: ISO and IEC use the following website to maintain terminology databases:

---IEC World Online Electronic Technology Vocabulary: <http://www.electropedia.org>

---ISO online browsing platform: <http://www.iso.org/obp>

4 equipment

4.1 C-type GB /ISO mold

The C-type GB /ISO mold is a four-cavity mold with "double T-shaped runners" for preparing small tensile specimens: Small tensile specimens for research

When investigating the impact of environment (such as liquid chemicals, heat and climate, etc.) on plastics, determine representative properties (see GB/T 37188:3-

2019[1]): The size of the small tensile specimen prepared by the C type GB /ISO mold should be the same as the CW11 type specified in 6:4 of GB/T 37426-2019

The sample is the same, with a thickness of 3:0mm+/-0:2mm:

The main structural details of the C-type GB /ISO mold should be consistent with those shown in Figure 1, and should meet 4:1:1:4 of GB/T 17037:1-2019

The requirements in a)~n), but g) in 4:1:1:4 in GB/T 17037:1-2019 should meet the following requirements:

The sample size is shown in GB/T 37426-2019 CW13 type sample, for example, the main size of the sample should be:

Width of the middle part 3:0mm~3:1mm

Shoulder area radius 15mm~16mm

The thickness of the sample should be 3:0mm+/-0:2mm, that is, the depth of the sample cavity should be 3:0mm~3:2mm: