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

GB/T 37426-2019

Plastics - Test specimens

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to modify the use of ISO 20753.2018 "plastic samples."

The technical differences between this standard and ISO 20753.2018 and their reasons are as follows.

---About the normative reference documents, this standard has made technical adjustments to adapt to China's technical conditions, adjustments

The situation is reflected in Chapter 2, "Regulatory Citations", and the specific adjustments are as follows.

- * Replace ISO 295 with GB/T 5471 equivalent to international standards;
- * Replace ISO 293 with GB/T 9352 equivalent to international standards;
- * Replaced ISO 294-1 with GB/T 17037.1 modified to adopt international standards;
- * Replace ISO 294-3 with GB/T 17037.3 equivalent to the international standard;
- * Replace ISO 10350-1 with GB/T 19467.1 modified to adopt international standards;
- * Replace ISO 10350-2 with GB/T 19467.2 equivalent to the international standard;
- * Replace ISO 11403-2 with GB/T 37188.2 equivalent to the international standard.

This standard has made the following editorial changes.

--- Give the URL information of the ISO and IEC maintenance terminology database in Chapter 3 Terms and Definitions in the form of a note;

--- In the test method mentioned in Appendix A, the standard number that has been converted into China's standard is added, and the corresponding reference is given in the reference.

China's current standard information.

Introduction

Up to now, information on plastic samples can be obtained from the following aspects. test method standards (eg GB/T 1040.2), multi-purpose samples

Standard GB/T 11997, and series of standards for molding conditions, GB/T 17037.1, GB/T 17037.3 and ISO 294-2,

ISO 294-5. This standard is intended to give the naming and sample size of samples for which comparable data are available. References in [1]~[35]

The size of other commonly used specimens is specified in the sub-standards. At present, the same sample types in other current national standards are named differently,

The same nomenclature as this standard is used in its revision.

After the publication of this standard, the revision of the national standard using GB/T 11997 multi-purpose specimens shall be changed to the specimens defined in this standard.

Plastic sample

1 Scope

This standard specifies the dimensional requirements for the preparation of specimens from plastic materials by molding or by sheet or profile machining. This standard

The sample nomenclature and sample size used to obtain comparable data, as well as the naming and sample size of other commonly used samples.

This standard specifies the following sample types, each of which may contain samples of different shapes and sizes.

a) Type A sample

Tensile specimens are obtained by simple molding methods, and specimens for other tests can be taken (see Appendix A), including Type A1 and A2.

Type specimen (1 = injection molding, 2 = machining from sheet or profile).

The A1 type sample is a multipurpose sample. The main advantage of multi-purpose specimens is that all laboratories can use comparable molds.

The multi-purpose samples obtained on the plastic parts complete all the tests mentioned in Appendix A. Therefore, the same sample prepared by the same method is used for measurement.

The performance data is consistent. In other words, it can be expected that the test results of a group of samples will not be changed by unintentional changes in molding conditions.

Significant changes have occurred. On the other hand, if necessary, it is easy to evaluate the influence of molding conditions and/or different states of the test on the test performance.

The scale ratio sample is named Axy type, where x is the method of sample preparation (1 = injection molding, 2 = machining from sheet or profile), y

To reduce the size of the scale factor (1. y). Scale scale specimens can be used for applications such as inconvenient full size specimens or less material

Happening.

b) Type B specimen

Long strip specimens, either directly molded or machined from the middle portion of the A1 specimen or from a sheet or profile.

c) Type C specimen

Small tensile specimens, either directly molded or machined from sheet specimens (eg, D-type specimens or F-type specimens), or from type A1

The middle portion of the sample is either machined from a sheet or profile.

d) D type specimen

Square plate specimens, thickness 1mm and 2mm, respectively, including D1 and D2 samples (1 = injection molding, 2 = from sheet or profile)

machining).

e) Type F specimen

Rectangular sheet specimen for analysis of anisotropic mechanical properties.

This standard applies to the naming and sample size specification of samples prepared by molding plastic materials or by sheet or profile machining.

Note. If a particular sample type is not mentioned in this standard, it does not mean that this standard is excluded from the use of this sample. If other sample types are common

Use, then it may be added to future revisions of this standard.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

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

GB/T 5471 plastic thermosetting plastic material sample compression molding (GB/T 5471-2008, ISO 295.2004, IDT)

Compression molding of GB/T 9352 plastic thermoplastic material samples (GB/T 9352-2008, ISO 293.2004, IDT)

Plastics -- Thermoplastics -- Preparation of injection mouldings - Part 1. General principles and s

Preparation of strip samples (GB/T 17037.1-2019, ISO 294-1.2017, MOD)

GB/T 17037.3 Preparation of injection molded specimens of plastics and thermoplastics - Part 3. Small square test piece (GB/T 17037.3-