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

GB/T 39385-2020

**Plastics piping and ducting systems. Thermoplastics pipes.
Determination of ring flexibility**

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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 translation method equivalent to ISO 13968.2008 "Plastic Piping System Thermoplastic Pipe Ring Flexibility Determination".

The Chinese documents that have a consistent correspondence with the international documents cited in this standard are as follows.

---GB/T 9647-2015 Thermoplastic pipe ring stiffness determination (ISO 9969.2007, IDT)

Please note that certain contents of this document may involve patents. The issuing agency of this document is not responsible for identifying these patents.

This standard was proposed by the China National Light Industry Council.

This standard is under the jurisdiction of the National Standardization Technical Committee for Plastic Products (SAC/TC48).

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1 Scope

This standard specifies a test method for the flexibility of a ring-shaped cross-section thermoplastic pipe ring.

This standard is applicable to the determination of the deformation and force value when the pipe reaches the specified radial deformation or breaks within the specified radial deformation range.

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 document.

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

ISO 9969 Thermoplastic pipe ring stiffness determination

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Ring flexibility

On the basis of maintaining the integrity of the pipe structure, the ability of the pipe to withstand radial deformation.

[EN13476-1.2007]

4 Principle

At a constant rate, the annular cross-section of the pipe is deformed in the diameter direction until it reaches the specified amount of deformation or breaks.

Measure the force value and the amount of deformation at this time to determine the ring flexibility of the pipe.

During the test, monitor the state of the sample and check whether the sample has

specified mechanical damage.

Note. The following test parameters can be given by relevant standards.

- a) When appropriate, samples with a length greater than that specified in ISO 9969 can also be selected, see Chapter 6;
- b) Deformation, as appropriate, see 8.1.

5.1 Testing machine

It meets the requirements of ISO 9969 and can produce the required radial deformation of the sample at an appropriate speed (see ISO 9969 for the test speed.

Table 1 of.2007).

5.2 Dimension and force measurement device

It conforms to the requirements of ISO 9969 and can measure the radial deformation and the corresponding force value when the sample reaches the specified requirements.