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**Thermoplastics piping systems for  
non-pressure underground drainage  
and sewerage — Thermoplastics  
shafts or risers for inspection  
chambers and manholes —  
Determination of resistance against  
surface and traffic loading**

*Systèmes de canalisations thermoplastiques pour branchements  
et collecteurs d'assainissement enterrés sans pression — Éléments  
de réhausse thermoplastiques pour boîtes d'inspection et de  
branchement ou regards — Détermination de la résistance aux  
charges de remblai et de circulation*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 1, *Plastics pipes and fittings for soil, waste and drainage (including land drainage)*.

This second edition cancels and replaces the first edition (ISO 13266:2010), which has been technically revised.

The main changes are as follows:

- normative references have been updated;
- definitions have been removed;
- an additional classification ("Class C") has been implemented in [Table 1](#);
- technical changes have been made in [8.2](#) and [Clause 10](#);
- this document has been editorially revised.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Thermoplastics piping systems for non-pressure underground drainage and sewerage — Thermoplastics shafts or risers for inspection chambers and manholes — Determination of resistance against surface and traffic loading

## 1 Scope

This document specifies a method of testing the resistance of the upper assembly of inspection chambers and manhole components against surface and traffic loading.

It is not applicable to requirements for testing the cover and frame. Those requirements are specified in EN 124-1 or other standards, depending on the material.

**NOTE** Upper assembly components normally include shafts or risers, cones, telescopic adapters and near surface components.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13260, *Thermoplastics piping systems for non-pressure underground drainage and sewerage — Test method for resistance to combined temperature cycling and external loading*

EN 124-1, *Gully tops and manhole tops for vehicular and pedestrian areas — Part 1: Definitions, classification, general principles of design, performance requirements and test methods*

CEN/TS 1046, *Thermoplastics piping and ducting systems — Outside the building structures for gravity and pressurised systems — Trench installation*

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

## 4 Principle

A test assembly comprising at least the first 1 m of chamber or manhole components, measured from, and including, any component or recommended installation assembly detail at the top end of the inspection chamber or manhole, is buried either in a soil box or under field conditions and a load is applied (see [Figure 1](#)).

During loading, the vertical displacement of the cover assembly is measured. After the test is finished, the test assembly is visually inspected and checked for defects.