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**Plastics piping systems — Multilayer
pipe systems for indoor gas
installations with a maximum
operating pressure up to and
including 5 bar (500 kPa) —**

**Part 1:
Specifications for systems**

Systèmes de canalisations en matières plastiques — Tubes multicouches et leurs assemblages pour une pression maximale de service inférieure ou égale à 5 bar (500 kPa) destinés à l'alimentation en gaz à l'intérieur des bâtiments —

Partie 1: Spécifications pour les systèmes



საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms, definitions and symbols	2
3.1 Structural definitions	3
3.2 Geometrical definitions	3
3.3 Definitions related to pressure	4
3.4 Materials definitions	4
3.5 Definitions related to material characteristics	5
3.6 Terms related to service conditions	5
4 Requirements for the system	6
4.1 Pressure drop	6
4.2 Bending	6
4.3 Corrosive conditions	6
5 Pipes	6
5.1 Materials	6
5.2 General characteristics	6
5.3 Dimensions of pipes	7
5.4 Mechanical properties	7
5.5 Physical properties	8
6 Fittings	9
6.1 General	9
6.2 Materials	10
6.3 Dimensions of fittings	10
6.4 Transition fittings	10
6.5 Rubber rings	10
7 Fitness for purpose	10
7.1 Diameter classes	10
7.2 Requirements	10
8 Marking and documentation	13
8.1 Legibility	13
8.2 Damage	13
8.3 Minimum required marking	13
8.4 Additional Instructions	13
Annex A (normative) List of the reference product standards	14
Annex B (normative) Test for delamination and strength of the joint line	15
Annex C (normative) Resistance to gas constituents	17
Annex D (normative) Thermal durability of the outer layer of M-pipes	19
Annex E (normative) Adhesion test	21
Annex F (normative) Odour permeability	22
Annex G (normative) Resistance to tensile load on joints	23
Annex H (normative) Crush test on joints	25
Annex I (normative) Impact resistance test on joints	27
Annex J (normative) Thermal cycling test on joints	29
Annex K (normative) Repeated bending test	31

Bibliography33

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

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. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 4, *Plastics pipes and fittings for the supply of gaseous fuels*.

This second edition cancels and replaces the first edition (ISO 17484-1:2006), which has been technically revised. It also incorporates ISO 17484-1:2006/Cor.1:2008.

ISO 17484 consists of the following parts, under the general title *Plastics piping systems — Multilayer pipe systems for indoor gas installations with a maximum operating pressure up to and including 5 bar (500 kPa)*:

- *Part 1: Specifications for systems*
- *Part 2: Code of practice*

Introduction

This part of ISO 17484 was developed in response to worldwide demand for minimum specification for multi-layered pipes for indoor gas applications.

Multi-layered pipes are delivered generally as a complete system. Pipes, fittings, tools, etc., are not compatible with components of another brand, generally. An advantage is that all components are perfectly geared to one another, but for repair, the lack of compatibility might be problematic in the future.

Safety of systems

Depending on the construction of the house, pipework layout and other local circumstances, it is possible that additional safety devices are required to fulfil the demands of fire safety. Safety aspects of the system are described in ISO 17484-2 and national regulations shall be taken into account.

Code of practice

The second part of ISO 17484 is the code of practice for installation.

Recommendations on design, construction and protection in case of fire of the gas indoor installation are given in EN 1775.

References to ISO/TC 138/SC5 work

Test methods referred to in this part of ISO 17484 have been developed by SC 5 as far as possible. However, not all test methods needed are in the working programme of SC 5. These test methods are placed in [Annexes B](#) to [K](#) of this part of ISO 17484. It is planned that these tests will be developed as International Standards in the future.

For multilayer pipe construction, consisting of a layer of a reference standard material, an adhesive and a non-stress-designed layer, procedure I and the relevant product standards are followed for all aspects, excluding the aspects of delamination and, if applicable, oxygen permeation.

For example, layers can have the following purposes:

- ability to withstand the pressure;
- ability to realize interlayer adhesion;
- ability to block or greatly diminish incoming UV and/or sunlight;
- ability to mechanically protect the outside layer;
- ability to control the longitudinal expansion;
- ability to give the multilayer pipe a colour (inside layer or outside layer).

Some characteristics can be combined in one layer.