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**Plastics piping systems for non-  
pressure underground drainage and  
sewerage — Structured-wall piping  
systems of unplasticized poly(vinyl  
chloride) (PVC-U), polypropylene (PP)  
and polyethylene (PE) —**

Part 2:

**Pipes and fittings with smooth  
external surface, Type A**

*Systèmes de canalisations en plastique pour les branchements et les  
collecteurs d'assainissement sans pression enterrés — Systèmes de  
canalisations à parois structurées en poly(chlorure de vinyle) non  
plastifié (PVC-U), polypropylène (PP) et polyéthylène (PE) —*

*Partie 2: Tubes et raccords avec une surface externe lisse, type A*



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# Contents

|  | Page      |
|--|-----------|
| <b>Foreword</b> .....  | <b>v</b>  |
| <b>Introduction</b> .....  | <b>vi</b> |
| <b>1 Scope</b> .....   | <b>1</b>  |
| <b>2 Normative references</b> .....  | <b>1</b>  |
| <b>3 Terms, definitions, symbols and abbreviated terms</b> .....   | <b>3</b>  |
| 3.1 Terms and definitions.....   | 3         |
| 3.2 Symbols.....   | 4         |
| 3.3 Abbreviated terms.....   | 4         |
| <b>4 Material</b> .....  | <b>5</b>  |
| 4.1 General.....   | 5         |
| 4.2 Unplasticized poly (vinyl chloride) (PVC-U).....   | 5         |
| 4.2.1 General.....   | 5         |
| 4.2.2 Pipe and fitting material characteristics.....   | 5         |
| 4.2.3 Utilization of non-virgin materials.....   | 5         |
| 4.3 Polypropylene (PP).....  | 6         |
| 4.3.1 General.....   | 6         |
| 4.3.2 Pipe and fitting material characteristics.....   | 6         |
| 4.3.3 Melt mass-flow rate classification.....  | 7         |
| 4.3.4 Utilization of non-virgin materials.....   | 7         |
| 4.4 Polyethylene (PE).....   | 7         |
| 4.4.1 General.....   | 7         |
| 4.4.2 Material characteristics of pipes and injection-moulded fittings.....                                      | 7         |
| 4.4.3 Material characteristics of rotational-moulded fittings.....   | 8         |
| 4.4.4 Utilization of non-virgin materials.....   | 9         |
| 4.5 Sealing ring retaining components.....   | 9         |
| 4.6 Sealing rings.....   | 9         |
| 4.7 Fused or welded joints.....  | 9         |
| 4.8 Adhesives for PVC-U.....   | 10        |
| <b>5 Designation of wall construction and examples of typical jointing methods</b> .....                         | <b>10</b> |
| 5.1 Wall constructions designated as Type A.....   | 10        |
| 5.1.1 Multilayer construction or hollow-wall construction with axial hollow sections, Type A1 constructions..... | 10        |
| 5.1.2 Hollow-wall construction with spirally or radially formed hollow sections, Type A2 constructions.....      | 10        |
| 5.1.3 Typical jointing methods for Type A structured-wall pipes.....   | 11        |
| 5.2 Designation and design of joints.....  | 11        |
| <b>6 General characteristics for pipes and fittings — Colour</b> .....   | <b>11</b> |
| <b>7 Geometrical characteristics</b> .....   | <b>12</b> |
| 7.1 General.....   | 12        |
| 7.2 Dimensions.....  | 12        |
| 7.2.1 Designation.....   | 12        |
| 7.2.2 Lengths of pipe.....   | 12        |
| 7.2.3 Diameters of Type A pipes and Type A spigots of pipes or fittings.....                                     | 12        |
| 7.2.4 Diameters and jointing dimensions of sockets and spigots.....  | 13        |
| 7.2.5 Wall thicknesses.....  | 14        |
| 7.3 Types of fitting.....  | 16        |
| <b>8 Physical characteristics</b> .....  | <b>16</b> |
| 8.1 Unplasticized poly(vinyl chloride) (PVC-U).....  | 16        |
| 8.1.1 Physical characteristics of PVC-U pipes.....   | 16        |
| 8.1.2 Physical characteristics of PVC-U fittings.....  | 17        |
| 8.2 Polypropylene (PP).....  | 18        |

|                     |  |           |
|---------------------|--|-----------|
| 8.2.1               | Physical characteristics of PP pipes .....   | 18        |
| 8.2.2               | Physical characteristics of PP fittings .....  | 18        |
| 8.3                 | Polyethylene (PE) .....  | 19        |
| 8.3.1               | Physical characteristics of PE pipes .....   | 19        |
| 8.3.2               | Physical characteristics of PE fittings .....  | 19        |
| <b>9</b>            | <b>Mechanical characteristics</b> .....  | <b>20</b> |
| 9.1                 | Mechanical characteristics of pipes .....  | 20        |
| 9.1.1               | General .....  | 20        |
| 9.1.2               | Ring flexibility .....   | 21        |
| 9.1.3               | Tensile strength of seams (Type A2) .....  | 21        |
| 9.1.4               | Additional requirements .....  | 21        |
| 9.2                 | Mechanical characteristics of fittings .....   | 22        |
| <b>10</b>           | <b>Performance requirements</b> .....  | <b>22</b> |
| <b>11</b>           | <b>Marking</b> .....   | <b>24</b> |
| 11.1                | General .....  | 24        |
| 11.2                | Minimum required marking .....   | 24        |
| 11.2.1              | Pipes .....  | 24        |
| 11.2.2              | Fittings .....   | 24        |
| <b>Annex A</b>      | <b>(normative) Virgin PVC-U material</b> .....   | <b>26</b> |
| <b>Annex B</b>      | <b>(normative) Utilization of non-virgin PVC-U material</b> .....                      | <b>27</b> |
| <b>Annex C</b>      | <b>(normative) Virgin PP material</b> .....  | <b>30</b> |
| <b>Annex D</b>      | <b>(normative) Utilization of non-virgin PP material</b> .....                         | <b>31</b> |
| <b>Annex E</b>      | <b>(normative) Virgin PE material</b> .....  | <b>34</b> |
| <b>Annex F</b>      | <b>(normative) Utilization of non-virgin PE material</b> .....                         | <b>35</b> |
| <b>Annex G</b>      | <b>(informative) Survey of possible use of reprocessed and recycled material</b> ..... | <b>38</b> |
| <b>Bibliography</b> | .....  | <b>39</b> |

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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)).

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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 21138:2007), which has been technically revised. The main changes compared to the previous edition are as follows:

- the normative references have been updated;
- references to EN test methods have been updated to ISO test methods, when applicable;
- editorial improvements have been made for clarification.

A list of all parts in the ISO 21138 series can be found on the ISO website.

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).

## Introduction

The ISO 21138 series of standards covers plastics piping systems for non-pressure underground drainage and sewerage, in particular thermoplastics structured-wall piping systems.

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