ISO 11300-1:2026-02 (E)

Piping systems for rehabilitation of underground drains, sewers and water supply networks - Part 1: Polyethylene (PE) material

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **2**

3 Terms and definitions **3**
3.1 General 3
3.2 Terms related to techniques 4
3.3 Terms related to characteristics 4
3.4 Terms related to product stages 6
3.5 Terms related to materials 6
3.6 Terms related to service conditions 7
3.7 Terms related to joints 8

4 Symbols and abbreviated terms **9**
4.1 Symbols 9
4.2 Abbreviated terms 10

5 Pipes **10**
5.1 Materials 10
5.1.1 General 10
5.1.2 Virgin material 10
5.1.3 Reprocessable material and recyclable material 11
5.2 General characteristics 11
5.2.1 Appearance 11
5.2.2 Colour 11
5.3 Material characteristics 11
5.4 Geometric characteristics 11
5.5 Mechanical characteristics 11
5.6 Physical characteristics 12
5.7 Jointing 12
5.8 Marking 12
5.9 Regional requirements for pipes 13

6 Fittings **13**
6.1 Materials 13
6.2 General characteristics 13
6.3 Material characteristics 14
6.4 Geometric characteristics 14
6.5 Mechanical characteristics 14
6.6 Physical characteristics 14
6.7 Jointing 14
6.8 Marking 14
6.9 Regional requirements for fittings 14

7 Ancillary components **14**

8 Fitness for purpose **15**
8.1 Materials 15
8.2 General characteristics 15
8.3 Geometric characteristics 15
8.4 Mechanical characteristics 15

8.5 Sampling 16
8.6 Regional requirements for pipes 16

9 Installation practice 16
9.1 Preparatory work 16
9.2 Storage, handling and transport of pipes and fittings 17
9.3 Equipment 17
9.3.1 General 17
9.3.2 Butt fusion equipment and de-beading equipment 17
9.3.3 Pipe skids/rollers 18
9.3.4 Winching and rod-pulling equipment 18
9.3.5 Pipe entry guides 18
9.3.6 Electrofusion equipment 18
9.3.7 Inspection equipment 18
9.3.8 Lifting equipment 19
9.4 Installation 19
9.4.1 General 19
9.4.2 Safety precautions 20
9.4.3 Simulated installations 20
9.5 Process-related inspection and testing 20
9.6 Pipe end termination 21
9.7 Reconnection to the existing pipeline system 21
9.8 Final inspection and testing 21
9.9 Documentation 21

Annex A (normative) **Additional requirements applicable for lining with continuous pipes 22**

Annex B (normative) **Additional requirements applicable for lining with close-fit pipes 24**

Annex C (normative) **Additional requirements for trenchless replacement techniques — Pipe bursting, pipe extraction, horizontal directional drilling and impact moling 29**

Annex D (normative) **Layered pipes 34**

Annex E (normative) **Factory-folded heat-reverted polyethylene (PE) pipe — Determination of memory ability 35**

Annex F (informative) **Pipe design considerations specific to pipe bursting and pipe extraction 37**

Annex G (informative) **Pipe design considerations specific to HDD 39**

Annex H (informative) **Summary of required elements to be included in installation manuals 41**

Bibliography 43