ISO 4982:2023-06 (E)

Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Arch-shaped, corrugated wall chambers made of PE or PP used for retention, detention, storage and transportation of storm water systems - Product specifications and performance criteria

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **2**
3.1 General terms 2
3.2 Material terms 3
3.3 Mechanical terms 3

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

5 Material **5**
5.1 General 5
5.2 Polyethylene (PE) material 5
5.2.1 General 5
5.2.2 Polyethylene (PE) virgin material 5
5.2.3 Polyethylene (PE) modified with minerals 5
5.2.4 Polyethylene (PE) non-virgin material 6
5.3 Polypropylene (PP) material 6
5.3.1 General 6
5.3.2 Polypropylene (PP) virgin material 6
5.3.3 Polypropylene (PP) modified with minerals 6
5.3.4 Polypropylene (PP) non-virgin material 6
5.4 Chamber and end cap material characteristics 6

6 General characteristics for arch-shaped chambers and end caps **9**
6.1 Appearance 9
6.2 Colour 9

7 Geometrical characteristics **9**
7.1 General 9
7.2 Volume 11
7.3 Weight 11

8 Physical characteristics **11**
8.1 Physical characteristics of PE chambers and end caps 11
8.2 Physical characteristics of PP chambers and end caps 12

9 Mechanical characteristics **12**

10 Marking **13**
10.1 General 13
10.2 Minimum required marking 14
10.2.1 Arch-shaped chambers 14
10.2.2 End caps 14

Annex A (normative) **Agreed specification between the manufacturer of the arch-shaped chambers and the supplier of the materials** **15**

Annex B (normative) **Arch stiffness and flattening capacity test for arch-shaped chambers** **17**
Annex C (normative) **Stiffness and flattening capacity test for end caps** **20**
Annex D (normative) **Stub compression strength test** **23**
Annex E (normative) **Stub creep testing under compression** **27**
Annex F (normative) **Arched-shaped chamber volume calculation** **30**
Annex G (informative) **Installation of arch-shaped chambers** **33**
Bibliography **36**