DIN EN 12201-3:2025-03 (E)

Plastics piping systems for water supply, and for drains and sewers under pressure - Polyethylene (PE) - Part 3: Fittings (includes Corrigendum :2024)

Contents

Page

European foreword 4

Introduction 6

1 Scope 7

2 Normative references 8

3 Terms and definitions 9

4 Symbols and abbreviated terms 10

5 Material 10
5.1 PE compound for fittings 10
5.2 Material for non-polyethylene parts 10
5.2.1 General 10
5.2.2 Metal parts 10
5.2.3 Sealing materials 11
5.2.4 Other materials 11

6 General characteristics 11
6.1 Appearance 11
6.2 Design 11
6.3 Colour 11
6.4 Electrical characteristics for electrofusion fittings 11
6.5 Appearance of factory made joints 12
6.6 Effect on water quality 12

7 Geometrical characteristics 12
7.1 Measurement of dimensions 12
7.2 Dimensions of electrofusion socket fittings 12
7.2.1 Diameters and lengths of electrofusion sockets 12
7.2.2 Wall thicknesses 15
7.2.3 Out-of-roundness of the bore of a fitting (at any point) 15
7.2.4 Spigots 15
7.2.5 Other dimensions 15
7.3 Dimensions of electrofusion saddle fittings 15
7.4 Dimensions of spigot end fittings 16
7.4.1 Diameters and lengths 16
7.4.2 Wall thickness of fusion end 19
7.4.3 Wall thickness of the fitting body 19
7.4.4 Other dimensions 19
7.5 Dimensions of socket fusion fittings 19
7.6 Design and dimensions of mechanical fittings 19
7.6.1 General 19
7.6.2 Mechanical fittings with polyethylene spigot ends 19
7.6.3 Mechanical fittings with polyethylene electrofusion sockets 19
7.6.4 Threads 19
7.7 Dimensions of fabricated fittings 20
7.8 Dimensions of loose backing flanges and flange adapters 20

8 Mechanical characteristics 20
8.1 General 20
8.2 Requirements 20
8.3 Performance requirements 24

9 Physical characteristics 24
9.1 Conditioning 24
9.2 Requirements 24

10 Chemical resistance of fittings in contact with chemicals 25

11 Performance requirements 25

12 Technical information 25

13 Marking 26
13.1 General 26
13.2 Minimum required marking of fittings 26
13.3 Additional marking 27
13.4 Fusion system recognition 27

14 Delivery conditions 27

Annex A (normative) Socket fusion fittings 28

Annex B (normative) Fabricated fittings 30

B.1 General 30
B.2 Dimensions 32
B.3 Segmented bends 32
B.4 Swept bends 34
B.5 Segmented tees 35

Annex C (informative) Examples of typical terminal connection for electrofusion fittings 37

Annex D (normative) Short-term pressure test method 40

D.1 Principle 40
D.2 Apparatus 40
D.3 Test piece 40
D.4 Procedure 40
D.5 Test report 41

Annex E (normative) Tensile test for fitting/pipe assemblies 42

E.1 Principle 42
E.2 Apparatus 42
E.3 Test piece 42
E.4 Procedure 42
E.5 Test report 42

Bibliography 43