DIN EN 12201-3:2011-11 (E)

Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE) - Part 3: Fitt ings

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 7

3 Terms and definitions, symbols and abbreviations 8

4 Material 9
4.1 PE compound 9
4.2 Material for non-polyethylene parts 9
4.2.1 General 9
4.2.2 Metal parts 10
4.2.3 Elastomers 10
4.2.4 Other materials 10

5 General characteristics 10
5.1 Appearance 10
5.2 Design 10
5.3 Colour 10
5.4 Electrical characteristics for electrofusion fittings 10
5.5 Appearance of factory made joints 11
5.6 Effect on water quality 11

6 Geometrical characteristics 11
6.1 Measurement of dimensions 11
6.2 Dimensions of electrofusion socket fittings 11
6.2.1 Diameters and lengths of electrofusion sockets 11
6.2.2 Wall thicknesses 13
6.2.3 Out-of-roundness of the bore of a fitting (at any point) 14
6.3 Dimensions of spigot end fittings 14
6.4 Dimensions of socket fusion fittings 16
6.5 Dimensions of electrofusion saddle fittings 16
6.6 Dimensions of mechanical fittings 17
6.7 Dimensions of loose backing flanges and flange adapters 17
6.8 Dimensions of fabricated fittings 17

7 Mechanical characteristics 17
7.1 General 17
7.2 Conditioning 18
7.3 Requirements 18
7.4 Retest in case of failure at 80 °C 20
7.5 Pressure drop 20
7.6 Performance requirements 20

8 Physical characteristics 21
8.1 Conditioning 21
8.2 Requirements 21

9 Chemical resistance of fittings in contact with chemicals 21

10 Performance requirements 21

11 Marking 22
11.1 General 22
11.2 Minimum required marking of fittings 22
11.3 Additional marking 23
11.4 Fusion system recognition 23

12 Delivery Conditions 23

Annex A (normative) Socket fusion fittings 24

Annex B (normative) Fabricated fittings 26

B.1 General 26
B.2 Dimensions 27
B.3 Segmented bends 28
B.4 Swept bends 30
B.5 Segmented tees 31

Annex C (informative) Examples of typical terminal connection for electrofusion fittings 33

Annex D (normative) Short-term pressure test method 36

D.1 Principle 36
D.2 Apparatus 36
D.3 Test piece 36
D.4 Procedure 36
D.5 Test report 37

Annex E (normative) Tensile test for fitting/pipe assemblies 38

E.1 Principle 38
E.2 Apparatus 38
E.3 Test piece 38
E.4 Procedure 38
E.5 Test report 38

Bibliography 40