

ISO 4437-3:2024-02 (E)

Plastics piping systems for the supply of gaseous fuels - Polyethylene (PE) - Part 3: Fittings

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	2
3	Terms and definitions	3
3.1	Terms related to geometry	3
3.2	Terms related to material	4
3.3	Terms related to material characteristics	5
3.4	Terms related to service conditions	5
3.5	Terms related to joints	6
4	Symbols and abbreviated terms	6
4.1	Symbols	6
4.2	Abbreviated terms	8
5	Material	9
5.1	PE compound for fittings	9
5.2	Material for non-polyethylene parts	9
5.2.1	General	9
5.2.2	Metal parts	9
5.2.3	Sealing materials	9
5.2.4	Other materials	10
6	General characteristics	10
6.1	Appearance	10
6.2	Colour	10
6.3	Design	10
6.4	Appearance of factory-made joints	10
6.5	Electrical characteristics for electrofusion fittings	10
7	Geometrical characteristics	11
7.1	Measurement of dimensions	11
7.2	Dimensions of electrofusion socket fittings	11
7.2.1	Diameters and lengths of electrofusion sockets	11
7.2.2	Wall thicknesses	13
7.2.3	Out-of-roundness of the bore of a fitting (at any point)	13
7.2.4	Spigots	13
7.2.5	Other dimensions	13
7.3	Dimensions of electrofusion saddle fittings	13
7.4	Dimensions of spigot end fittings	14
7.4.1	Diameters and lengths	14
7.4.2	Wall thickness of the fusion end	16
7.4.3	Wall thickness of the fitting body	16
7.4.4	Other dimensions	16
7.5	Dimensions of socket fusion fittings	16
7.6	Design and dimensions of mechanical fittings	16
7.6.1	General	16

7.6.2	Mechanical fittings with polyethylene spigot ends	17
7.6.3	Mechanical fittings with polyethylene electrofusion sockets	17
7.6.4	Threads	17
8	Mechanical characteristics	17
8.1	General	17
8.2	Requirements	17
8.3	Modifications of the fitting	20
8.4	Performance requirements	20
9	Physical characteristics	21
9.1	Conditioning	21
9.2	Requirements	21
10	Performance requirements	22
11	Technical information	22
12	Marking	22
12.1	General	22
12.2	Minimum required marking of fittings	23
12.3	Additional marking	23
12.4	Fusion system recognition	23
13	Delivery conditions	24
Annex A (normative)	Socket fusion fittings	25
Annex B (informative)	Examples of typical terminal connections for electrofusion fittings	27
Annex C (normative)	Short-term pressure test method	30
Annex D (normative)	Tensile test for fitting/pipe assemblies	32
Annex E (informative)	Formulae for calculating the equivalent dimensions of non-metric electrofusion socket fitting series	34
Bibliography	35