

ISO 17885:2021 (E)

Plastics piping systems — Mechanical fittings for pressure piping systems — Specifications

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms, definitions, symbols and abbreviated terms
3.1	Terms and definitions
3.2	Symbols and abbreviated terms
3.2.1	Materials
3.2.1.1	Plastics
3.2.1.2	Metals
3.2.1.3	Other
3.2.2	Applications
4	Manufacturers' declaration for the field of application
5	Material
5.1	General
5.2	Plastic materials
5.3	Metals
5.4	Elastomers
5.5	Lubricants and/or greases
6	General characteristics
6.1	Appearance
6.2	Colour
6.3	Weathering protection
6.4	Threads
6.5	Transition fittings to metal pipes
6.6	Combined fittings
6.7	Twisting
7	Geometrical characteristics
8	Physical characteristics
8.1	Evaluation of the MRS value of the plastic material
8.2	Verification of long-term behaviour of the plastic material
8.3	Specific material related characteristics of fitting materials
8.4	Application-related characteristics
8.4.1	Effect on water quality (W)
8.4.2	Resistance to gas constituents (GAS)
8.4.3	Chemical resistance of fittings for industrial applications (IS)
9	Performance requirements
9.1	General
9.2	Pressure resistance of the fitting body
9.2.1	Preparation of test piece
9.2.2	Testing of pressure resistance
9.3	Fitting assemblies
9.3.1	Preparation of test assemblies

- 9.3.2 Test scheme
- 9.3.3 Requirements
 - 9.3.3.1 Leak tightness under internal pressure (GAS, W, P, I, IS)
 - 9.3.3.2 Long-term pressure test for leak tightness under internal pressure (GAS, W, P, I, IS)
 - 9.3.3.3 Resistance of plastic pipe/pipe or pipe/fitting assemblies to tensile loading at 23 °C (GAS)
 - 9.3.3.4 Resistance to pull-out at 23 °C (W, P, I, IS)
 - 9.3.3.5 Resistance to end load at 80 °C (GAS)
 - 9.3.3.6 Leak tightness after temperature cycling (outside temperature) (GAS)
 - 9.3.3.7 Leak tightness under internal pressure when subjected to bending (GAS, W, P, I, IS)
 - 9.3.3.8 Leak tightness under negative pressure (W, P, I, IS)
 - 9.3.3.9 Leak tightness with angular deflection and deformation (GAS, W, P, I, IS)
 - 9.3.3.10 Leak tightness and strength while subjected to bending and internal pressure (W, P, I, IS)
 - 9.3.3.11 Flow rate pressure drop relationship (GAS)
 - 9.3.3.12 Stress corrosion test (GAS, W, P, I, IS)
- 10 Marking
- 11 Packaging
- Annex A (informative) List of standards
- Annex B (normative) Stiffener requirements
- Annex C (normative) Test pressure of materials and fitting bodies
- Annex D (normative) Physical characteristics of fitting materials
- Annex E (normative) Resistance to gas constituents
- Annex F (normative) Test stresses
- Annex G (normative) Cyclic test procedure

Page count: 39