

ISO 19880-7:2025-08 (E)

Gaseous hydrogen - Fuelling stations - Part 7: Rubber O-rings

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Inside diameters, cross-section diameters and tolerances	2
4.1	Configuration	2
4.2	Inside diameters, d1, cross-section diameter, d2, and tolerances	3
4.3	Methods of measuring for receiving inspection	3
5	Housing dimensions	3
5.1	O-ring housings	3
5.2	Requirements	3
5.2.1	Housing dimensions	3
5.2.2	Determining O-ring size for custom housing dimensions	3
5.2.3	Determining housing fill in design of housing	4
5.2.4	Determining temperature in design of housings	4
6	Inspection and quality acceptance criteria	4
7	Anti-extrusion rings (back-up rings)	4
8	Specification of rubber materials	4
8.1	Rubber materials	4
8.2	Curing systems	5
8.3	O-ring requirements	5
8.4	Detailed requirements of O-ring materials	7
9	Designation system	17
9.1	General	17
9.2	Designation codes	17
9.3	Identification statement	18
10	Instruction manual	18
10.1	General	18
10.2	Verification prior to use	18
Annex A (normative)	Exposure test in hydrogen gas	19
Annex B (normative)	Criteria for appearance of exposed test pieces	21
Annex C (informative)	O-ring stress/strain and compression set testing	22
Bibliography		23