

ISO 4633:2023-08 (E)

Rubber seals - Joint rings for water supply, drainage and sewerage pipelines - Specification for materials

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Classification	2
5	Requirements	2
5.1	General	2
5.2	Effect on water quality	2
5.3	Microbiological deterioration	3
5.4	Dimensional tolerances	3
5.5	Imperfections and defects	3
5.6	Hardness	3
5.7	Tensile strength and elongation at break	3
5.8	Compression set in air	3
5.8.1	General	3
5.8.2	Compression set at 23 °C and 70 °C	4
5.8.3	Low-temperature compression set at -10 °C	4
5.9	Accelerated ageing in air	4
5.10	Stress relaxation in compression	4
5.11	Volume change in water	4
5.12	Ozone resistance	5
5.13	Splices of prevulcanized profile ends	5
5.13.1	Spliced joints	5
5.13.2	Strength of spliced joints	5
5.14	Summary of physical property requirements	5
6	Optional requirements	6
6.1	Low temperature performance at -25 °C, (type L)	6
6.2	Volume change in oil, (type O)	6
6.3	Lifetime estimation, (type LT)	6
6.3.1	General	6
6.3.2	Method 1 by stress relaxation	7
6.3.3	Method 2 by compression set	7
6.4	Summary of optional property requirements	7
7	Test pieces and test temperature	8
7.1	Preparation of test pieces	8
7.2	Test temperature	8
8	Quality assurance	8
9	Storage	8
10	Designation	8
11	Marking and labelling	9
Annex A (normative)	Determination of splice strength	10
Annex B (informative)	Quality assurance	11
Annex C (informative)	Guidance on storage of seals	12
Annex D (informative)	Remarks regarding the lifetime estimation in 6.3	13
Bibliography		14