

DIN EN 549:2019-09 (E)

Rubber materials for seals and diaphragms for gas appliances and gas equipment

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Product's information	7
5	Classification	8
6	Requirements	9
6.1	General	9
6.2	Requirements for rubber material used to manufacture seals	9
6.3	Requirements for rubber material used to manufacture diaphragms	10
7	Test methods	12
7.1	General	12
7.2	Hardness	12
7.3	Tensile strength and elongation at break	12
7.4	Compression set	12
7.5	Resistance to ageing	12
7.6	Resistance to gas	12
7.7	Resistance to condensate/liquid phase of combustible gases	13
7.8	Resistance to lubricants	13
7.9	Resistance to ozone	13
8	Evaluation of life-time for material used to manufacture seals	15
9	Infrared spectra of the material	16
Annex A (normative)	Requirements and test of components	17
A.1	Scope	17
A.2	Requirements	17
A.2.1	General	17
A.2.2	Physical and chemical properties of seals	17
A.2.3	Physical and chemical properties of diaphragms	17
A.3	Tests methods for components	17
A.3.1	General	17
A.3.2	Hardness	17
A.3.3	Resistance to ageing	18
A.3.4	Resistance to gas	18
A.3.5	Resistance to condensate/liquid phase of combustible gas	18
A.3.6	Resistance to lubricants	18
A.3.7	Resistance to ozone	19
Annex B (normative)	Infrared spectra of the material	23

B.1	Scope	23
B.2	Requirements	23
B.2.1	General	23
B.2.2	Solvent extract	23
B.2.3	Infrared spectra	23
B.2.4	Density	23
B.3	Methods of test	23
B.3.1	General	23
B.3.2	Solvent extraction	23
B.3.3	Infrared spectra	24
B.3.4	Density	24
Annex C (normative)	Evaluation of lifetime for material used to manufacture seals by using the compression set method	25
C.1	General	25
C.2	Requirements	26
C.3	Test Procedure	26
C.4	Evaluation of Test Results	27
C.5	Documentation	28
Annex D (informative)	Verification of identity of material	29
D.1	Scope	29
D.2	Verification requirements	29
D.2.1	General	29
D.2.2	Solvent extract	29
D.2.3	Infrared spectra	29
D.2.4	Density	29
Annex ZA (informative)	Relationship between this European Standard and the essential requirements of Regulation 2016/426 aimed to be covered	30
Bibliography		31