

ISO 1431-1:2012-08 (E)

Rubber, vulcanized or thermoplastic - Resistance to ozone cracking - Part 1: Static and dynamic strain testing

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	2
5	Apparatus (see Figure 1)	2
5.1	Test chamber	2
5.2	Source of ozonized air	3
5.3	Means of adjusting the ozone concentration	4
5.4	Means of determining the ozone concentration	4
5.5	Means of adjusting the gas flow	4
5.6	Mounting test pieces for static strain testing	4
5.7	Mounting test pieces for dynamic strain testing	5
6	Calibration	5
7	Test pieces	5
7.1	General	5
7.2	Wide test piece	6
7.3	Narrow test piece	6
8	Conditioning	6
8.1	Conditioning in the unstrained state	6
8.2	Conditioning in the strained state (for static strain testing only)	7
9	Test conditions	7
9.1	Ozone concentration	7
9.2	Temperature	7
9.3	Relative humidity	8
9.4	Maximum elongation	8
10	Static strain testing	8
10.1	General	8
10.2	Procedure A	8
10.3	Procedure B	8
10.4	Procedure C	8
11	Dynamic strain testing	9
11.1	General	9
11.2	Continuous dynamic exposure	9
11.3	Intermittent dynamic exposure	9
12	Expression of results	10
12.1	Procedure A	10
12.2	Procedure B	10
12.3	Procedure C (for static tests only)	10

13	Test report	11
	Annex A (informative) Ozone cracking -- Explanatory notes	13
	Annex B (normative) Calibration schedule	14
	Annex C (informative) Ozone cracking -- Rating scales	16
	Bibliography	17