ISO 11346:2023-06 (E)

Rubber, vulcanized or thermoplastic - Estimation of life-time and maximum temperature of use

Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Principle ... **2**

5 Selection of tests and ageing oven ... **2**

6 Selection of threshold value ... **3**

7 Test pieces ... **3**
7.1 General ... 3
7.2 Number of test pieces ... 3

8 Exposure temperatures ... **4**

9 Exposure times ... **4**

10 Test procedure ... **4**

11 Analysis of results ... **6**
11.1 Arrhenius procedure ... 6
11.1.1 Relevant formulae and relations ... 6
11.1.2 Preparation of test results and determination of reaction rates ... 6
11.1.3 Calculation of life-time at a given temperature ... 8
11.1.4 Calculation of life-time at a given time-temperature collective (optional) ... 8
11.2 WLF procedure ... 8
11.3 Limitations ... 11

12 Test report ... **11**

Annex A (informative) **Calculation of life-time at a given time-temperature collective** ... **13**

Annex B (informative) **Application example for the Arrhenius procedure using a calculation software for discontinuous measurements** ... **15**

Bibliography ... **21**