ISO/TS 24110:2026-04 (E)

Plastics - Method of exposure to combined UV radiation and creep load

Contents

Page

Foreword ... iv

Introduction ... v

1 Scope ... 1

2 Normative references ... 1

3 Terms and definitions ... 1

4 Principle ... 2

5 Apparatus ... 2

5.1 General ... 2

5.2 Test device for combined exposure ... 2

5.3 Laboratory UV radiation source ... 2

5.3.1 General ... 2

5.3.2 Fluorescent UVA lamp ... 2

5.3.3 Fluorescent UVB lamp ... 2

5.3.4 Low pressure mercury UVC lamp ... 2

5.4 Radiometer ... 2

5.5 Black-panel/black-standard thermometer ... 2

5.6 Creep device ... 3

5.6.1 General ... 3

5.6.2 Loading system ... 3

5.6.3 Specimen grip ... 3

5.7 Assessment of changes in properties ... 3

6 Test specimens ... 3

7 Test conditions for combined exposure ... 3

8 Procedure ... 4

8.1 General ... 4

8.2 Mounting of the test specimen ... 4

8.3 Combined exposure ... 5

8.3.1 Conditioning ... 5

8.3.2 Preloading ... 5

8.3.3 Loading ... 5

8.3.4 UV exposure ... 5

8.4 Extension measurement schedule ... 5

8.5 Time measurement for creep ... 5

8.6 Measurement of radiant exposure ... 5

8.7 Determination of the changes in properties after exposure ... 5

9 Test report ... 5

Annex A (informative) **Comparison of UV exposure and combined creep 10 %, 20 %, 30 % creep load based on tensile yield strength** ... 7

Annex B (informative) **Combined UV radiation and creep load test equipment** ... 10