ISO 21178:2020-02 (E)

Light conveyor belts - Determination of electrical resistances

Contents

Page

Foreword ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Symbols **2**

5 Electrical surface resistances **2**

5.1 Method A: Measurement of surface resistance, R_{OA}, omni-directionally 2

5.1.1 Applicability 2

5.1.2 Principle 2

5.1.3 Apparatus (see Figure 1) 2

5.1.4 Test piece 4

5.1.5 Procedure 5

5.1.6 Expression of results 6

5.1.7 Test report 6

5.2 Method B: Measurement of surface resistance R_{OB} in longitudinal and transverse directions 6

5.2.1 Applicability 6

5.2.2 Principle 6

5.2.3 Apparatus (see Figure 4) 6

5.2.4 Test piece 8

5.2.5 Procedure 9

5.2.6 Expression of results 9

5.2.7 Test report 9

6 Electrical surface resistivity ρ_s **10**

6.1 General 10

6.2 Principle 10

6.3 Apparatus 11

6.4 Test piece 12

6.4.1 Material 12

6.4.2 Dimensions 12

6.4.3 Number 12

6.4.4 Cleaning 12

6.4.5 Conditioning 12

6.4.6 Preparation 12

6.5 Procedure 12

6.6 Expression of results 13

6.7 Test report 13

7 Electrical volume resistances **13**

7.1 Volume resistance, R_D, perpendicular to plane of belt 13

7.1.1 Principle 13

7.1.2 Apparatus 13

7.1.3 Test piece 14

7.1.4 Procedure 15

7.1.5 Expression of results 15

7.1.6 Test report 15

7.2 Volume resistance, R_{Di}, in longitudinal and transverse directions parallel to plane of belt 16

7.2.1 Principle 16
7.2.2 Apparatus 16
7.2.3 Test piece 17
7.2.4 Procedure 18
7.2.5 Expression of results 19
7.2.6 Test report 19

8 Electrical volume resistivity, ρ_D 19
8.1 Procedure 19
8.2 Expression of results 19
8.3 Test report 20

Bibliography 21