UL 2136

Outline of Investigation for Cables for Use in Repetitive Motion Applications

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Summary of Topics

This is the First issue of the Outline of Investigation for Cables for Use in Repetitive Motion Applications, UL 2136, dated June 9, 2026. It covers wires and cables in the form of single insulated conductors or multi-conductor cables for use in repetitive motion applications.

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CONTENTS

INTRODUCTION

1 Scope 5
2 Components 5
3 Units of Measurement 5
4 Referenced Publications 6

CONSTRUCTION

5 General 6
6 Materials 8
7 Conductor 9
7.1 General 9
7.2 Metal 10
7.3 Size and cross-sectional area 12
7.4 Metal coating 13
7.5 Resistance 13
7.6 Separator 15
8 Insulation 15
8.1 General 15
8.2 Insulation materials 15
8.3 Insulation thickness 16
9 Coverings 17
10 Fillers 18
11 Binders 18
12 Shield(s) 19
13 Cable Assembly 19
14 Overall Jacket 19
14.1 General 19
14.2 Overall jacket materials 19
14.3 Overall jacket thickness 20

PERFORMANCE

TESTS FOR THERMAL AND CHEMICAL PROPERTIES

15 Physical Properties, Unaged and Air Oven Aged 21
16 Physical Properties, Oil Immersion Aging 22
17 Conductor Corrosion Test 22
18 Deformation Test (Thermoplastics and Class XL Only) 23
19 Flexibility Test of Nylon Covering 24
20 Flexibility Test 24
21 Heat Shock Test (Thermoplastic Materials Only) 25
22 Cold Bend Test 26
23 Durability of Ink-Print Test 26

TESTS FOR MECHANICAL PROPERTIES

24 Crush Resistance Test 27

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TESTS FOR ELECTRICAL PROPERTIES

25 Dielectric Test, Method I....28
26 Dielectric Test, Method II....29
27 Dielectric Test, Method III....30

TESTS FOR FLAME PROPERTIES

28 Horizontal Flame Test for Internal Wiring....31
29 Cable Flame Test....31
30 VW-1 Flame Test....31
31 FT1 Flame Test....31
32 FT2 Flame Test....31
33 IEC 60332-1 Flame Test....31
34 IEC 60332-2 Flame Test....32
35 Repeated Motion Tests....32
35.1 General....32
35.2 Tick-tock test....32
35.3 Torsion test....32
35.4 Chain track (c-track) test....33
35.5 Serpentine flexing test....33
35.6 Evaluation after repeated motion....33

MANUFACTURING AND PRODUCTION TESTS

36 Test for Continuity of Conductors....34
37 Spark Test....34
38 Production-Line Dielectric Test....35

MARKINGS

39 Surface Marking....36
40 Markings on Tag, Reel, or Carton....37

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INTRODUCTION

1 Scope

1.1 These requirements cover wires and cables in the form of single insulated conductors or multi-conductor cables for use in repetitive motion applications.

1.2 The products covered by the requirements of this Outline are solely for use wiring either within an overall enclosure or as external interconnecting cable.

1.3 These requirements do not cover any wire, cable, or cord types that are presently covered in NFPA 70®, *National Electrical Code®* (NEC®) and are not intended for installation in buildings or structures in accordance with the NEC.

1.4 These requirements cover wire and cable with operating temperatures from a minimum 60 °C (140 °F) dry temperature rating, and voltage ratings from a minimum 30 V up to and including 2000 V. Conductor size ranges from 36 AWG to 4/0 AWG, stranded only.

1.5 Unless otherwise indicated, the term ‘cable’ shall be used when the term ‘wire’ could be used, unless explicitly referred.

1.6 The final acceptance of these wires and cables is dependent upon its use in complete equipment that conforms with the standards applicable to such equipment.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this Outline shall comply with the requirements for that component.

2.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this Outline, or

b) Is superseded by a requirement in this Outline.

2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

3.2 Unless otherwise indicated, all voltage values mentioned in this Outline are root-mean-square (rms).

3.3 Equipment calibrated in metric units is to be used when a requirement is applied in metric terms.

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