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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 13849.1-2013

Replacing GB/T 13849.1-1993

**Local telecommunication cables with polyolefin insulation and
polyolefin sheath - Part 1: General**

聚烯烃绝缘聚烯烃护套市内通信电缆 第1部分：总则

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Symbols, codes and product designation	3
5 Conductor	4
6 Insulation	4
7 Pair groups (hereinafter called pairs)	5
8 Cable core	5
9 Colour code of the insulated cores inside a basic unit	6
10 Binder yarns (tapes) of basic units and super-units and their colour code	6
11 Cable end identification	6
12 Spare pairs and service pairs	9
13 Aluminium-polyethylene bonded sheath (moisture barrier polyethylene sheath)	9
14 Outer protective layer	10
15 Anti-termite cable construction	11
16 Flame-retardant cable construction	11
17 Electrical performance	11
18 Mechanical, physical and environmental performance	16
19 Environmental protection performance	16
20 Delivery length	16
21 Test methods	17
22 Inspection rules	18
23 Marking and packaging	21
Annex A (normative) Munsell colour designations of the insulation colours	22
Annex B (informative) Recommended structural arrangement of the cable core	23
Annex C (normative) Test method for colour migration	24
Annex D (normative) Test method for the compression resistance of the insulation	25
Annex E (normative) Test method for the peel strength between the aluminium tape and the polyethylene sheath	26
Annex F (normative) Bending performance test of the finished cable	28

1 Scope

This part of GB/T 13849 sets the construction, the mechanical, physical and electrical performance requirements, the test methods, the inspection rules and the marking and packaging of local telecommunication cables with copper conductors, polyolefin insulation and a moisture-barrier polyolefin sheath.

This part applies to the manufacture, the acceptance and the use of local telecommunication cables with copper conductors, polyolefin insulation and a moisture-barrier polyolefin sheath.

The cables covered by this part can carry audio signals and digital signals at the 2B+D rate of the integrated services digital network and below; they can also carry digital signals at 2 048 kbit/s or analogue signals below 150 kHz, and under certain conditions digital signals above 2 048 kbit/s.

2 Normative references

The following documents are indispensable for the application of this document. For dated references only the edition cited applies; for undated references the latest edition, including all amendments, applies.

The general cable and material documents cited are GB/T 2900.10-2001 Electrotechnical terminology - Cables; GB/T 2951.11-2008, GB/T 2951.12-2008, GB/T 2951.13-2008 and GB/T 2951.14-2008 Common test methods for insulating and sheathing materials of electric and optical cables, Parts 11, 12, 13 and 14; GB/T 2951.41-2008 and GB/T 2951.42-2008, the methods specific to polyethylene and polypropylene compounds; GB/T 2952.1-2008 and GB/T 2952.3-2008 Cable outer protection, Parts 1 and 3; GB/T 3048.9-2007 and GB/T 3048.10-2007 Test methods for electrical properties of electric wires and cables, on the spark test of insulated cores and the spark test of extruded sheaths; GB/T 3953-2009 Round copper wire for electrical purposes; GB/T 6995.2-2008 and GB/T 6995.3-2008 Marking methods for electric wires and cables, Parts 2 and 3; GB/T 7424.2-2008 Optical fibre cables - Part 2: Basic test methods; and GB/T 11327.1-1999 Polyvinyl chloride insulated and polyvinyl chloride sheathed low-frequency communication cables and wires - Part 1: General test and measuring methods.

The other parts of the series are cited as GB/T 13849.2, GB/T 13849.3, GB/T 13849.4 and GB/T 13849.5.

The remaining documents cited are GB/T 15065-2009 Black polyethylene plastics for electric wires and cables; GB/T 17650.2-1998 Determination of gases evolved during combustion of materials from cables - Part 2: Determination of the acidity of gases by measuring pH and conductivity; GB/T 17651-1998 Measurement of smoke density of cables burning under defined conditions; GB/T 18380.12-2008 Tests on electric and optical

fibre cables under fire conditions - Part 12: Test for vertical flame propagation for a single insulated wire or cable, 1 kW pre-mixed flame test method; GB/T 19666-2005 General rules for flame-retardant and fire-resistant electric wires and cables; JB/T 8137 (all parts) Delivery drums for electric wires and cables; SJ/T 11363-2006 Requirements for concentration limits for certain hazardous substances in electronic information products; YD/T 723.2-2007 and YD/T 723.3-2007 Metal-plastic composite tapes for communication cables and optical cables, Parts 2 and 3; YD/T 760-1995 Polyolefin insulating compounds for local telecommunication cables; YD/T 839-2000 Filling and flooding compounds for communication cables and optical cables; YD/T 1020-2004 Characteristics of anti-termite sheathing materials for cables and optical cables; and YD/T 1115-2001 Water-blocking materials for communication cables and optical cables.

3 Terms and definitions

The terms and definitions given in GB/T 2900.10-2001 and the following ones apply to this document.

3.1 unit - A cable element formed by stranding 25 pair groups together, used to build a super-unit or a cable core.

3.2 super-unit - A cable element formed by stranding several units or sub-units together, used to build a cable core.

3.3 sub-unit - A cable element formed by stranding together a number of pair groups smaller than the number contained in a basic unit, used to build a cable core.

3.4 foam-skin polyolefin insulation - Insulation with an inner foamed polyolefin layer and an outer solid polyolefin layer, or with solid polyolefin as the inner and the outer layer and foamed polyolefin in between.