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

JG/T 442-2014

**Irradiation crosslinking low-smoke halogen-free flame retardant
power cables with double-layer extrusion insulation of rated
voltage 0.6/1 kV**

(English Translation)

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Table of Contents

Preface	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Classification and marking	
5 General Provisions	
6 Requests	
7 Test methods	
8 Test	
9 Logo, packaging, transportation and storage	
Appendix A (Normative) Insulation material mechanical and electrical properties	
Appendix B (Normative) Aluminum alloy armored with interlocking technical requirements	
Appendix C (Normative) Sheath material mechanical properties and electrical properties	
Appendix D (Informative) Calculation of circuit carrying capacity and conductor cross-sectional area of	
Appendix E (Informative) Cable Reference Current	
Appendix F (Informative) Creep test method	
Annex G (Normative) Interlocking armor layer tightness test	
Appendix H (Normative) Interlocking armor tensile and elongation test	
Appendix I (Normative) Crush test at room temperature	
Appendix J (Normative) Impact test at room temperature	
Appendix K (Informative) Carrying capacity test	

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard proposed by the Ministry of Housing and Urban Standard and Design Institute.

This standard by the Ministry of Housing and Urban Construction Electric Standardization Technical Committee.

1 Scope

This standard specifies the terms and conditions of rated voltage 0.6/1kV double co-extruded insulation cross-linked halogen-free low smoke flame retardant, fire-resistant power cable Meaning, Classification and Marking, General Provisions, Requirements, Test Methods, Inspection, Marking, Packaging, Transport and Storage.

This standard applies to industrial and civil buildings rated voltage 0.6/1kV double co-extruded insulation radiation cross-linked halogen-free low smoke flame retardant, fire-resistant electricity cable.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1408.1-2006 Insulating material electrical strength test methods - Part 1. Test at power frequency (IEC 60243-1.:1998, IDT) GB/T 1410-2006 Test methods for volume resistivity and surface resistivity of solid insulating materials (IEC 60093. 1980, IDT) GB/T 2406.2-2009 Plastics - Determination of combustion behavior by oxygen index method - Part 2. Room temperature test (ISO 4589-2.:1996, IDT) GB/T 2900.10 Electrotechnical terminology cables (IEC 60050-461.:2008, IDT) GB/T 2951.11-2008 Common test methods for insulating and sheathing materials of electric cables and cables - Part 11. Common test methods Method --- thickness and shape measurement --- mechanical properties test (IEC 60811-1-1.:2001, IDT) GB/T 2951.12-2008 Common test methods for insulating and sheathing materials of electric cables and cables - Part 12. Common test methods Method --- thermal aging test method (IEC 60811-1-2. 1985, IDT) GB/T 2951.13-2008 Common test methods for insulating and sheathing materials of electric cables and cables - Part 13. General test methods Method --- Determination of density --- Water absorption test --- Shrinkage test (IEC 60811-1-3.:2001, IDT) GB/T 2951.14-2008 Common test methods for insulating and sheathing materials of electric cables and cables - Part 14. Common test methods Method --- low temperature test (IEC 60811-1-4. 1985, IDT) GB/T 2951.21-2008 Common test methods for insulating and sheathing materials of electric cables and cables - Part 21. Elastomer mixtures Test methods --- ozone-resistant test --- thermal elongation test --- immersion mineral oil test (IEC 60811-2-1.:2001, IDT) GB/T 2951.31-2008 Common test methods for insulating and sheathing materials of electric cables and cables - Part 31. Polyvinyl chloride compounds Specific test methods --- High temperature pressure test --- Cracking resistance test (IEC 60811-3-1. 1985, IDT) GB/T 3048.4-2007 wire and cable electrical performance test methods - Part 4. Conductors DC resistance test GB/T 3048.8 wire and cable electrical performance test methods Part 8. AC voltage test GB/T 3048.9 wire and cable electrical performance test methods - Part 9. insulated wire spark test GB/T

3048.10 wire and cable electrical performance test methods - Part 10. Extrusion sheath spark test GB/T 3082 armored cable with hot-dip galvanized or hot dip galvanized -5% aluminum - mixed rare earth alloy coating low-carbon steel wire GB/T 3956-2008 Cable conductor (IEC 60228.:2004, IDT) Bare wires - Test methods - Part 2. Measurement of dimensions GB/T 4909.2-2009 GB/T 4909.3 Bare wire test methods - Part 3. Rally test GB/T 4909.5 Bare wire test methods - Part 5. Bending test --- repeated bending GB/T 5013.2-2008 Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2. Test methods (IEC