

(3) In the case of imported portable appliances in which the flexible cord is connected by the maker, the maker's name, or registered trade-mark, or registered trade-name, and grade of insulation need not be so marked, provided such appliance is branded with the manufacturer's name, or registered trade-mark, or registered trade-name or otherwise readily identifiable.

PROTECTIVE COVERING OF CONDUCTORS.

23-41. The types of protective covering prescribed by Regulations 23-42 to 23-71 (both inclusive) hereof are hereby declared to be approved types for the purposes of these regulations and these types, or such other types as may from time to time be approved, shall alone be employed.

RUBBER-INSULATED CABLES.

23-42. Rubber-insulated cables other than flexible cables shall be provided with some one of the following coverings:—

- (a) Taped as in paragraph (a) of clause (3) of Regulation 23-12 hereof and compounded; or
- (b) Braided as in Regulation 23-51 hereof; or
- (c) Bedded and armoured, with or without serving or braiding over the armour; the bedding, armouring, and serving or braiding (if any) shall be in accordance with British Standard Specification No. 7 or its equivalent; or
- (d) Covered with tough rubber compound in accordance with the requirements of Regulation 23-71 hereof; or
- (e) Covered in accordance with the requirements of Regulation 23-43 hereof.

RUBBER-INSULATED CABLES OR PAPER-INSULATED CABLES.

23-43. Rubber-insulated cables or paper-insulated cables other than flexible cables shall be provided with some one of the following coverings:—

- (a) Sheathed with a closely fitting seamless covering of commercially pure lead having a smooth exterior surface and of a uniform radial thickness in accordance with British Standard Specification No. 7 or British Standard Specification No. 480 (as the case may be) or their equivalent; or
- (b) Lead-covered as in the last preceding paragraph, and bedded and armoured, with or without serving or braiding over the armour; the bedding, armouring, and serving or braiding (if any) shall be in accordance with British Standard Specification No. 7 or British Standard Specification No. 480 (as the case may be) or their equivalent; or
- (c) Sheathed with a closely fitting seamless covering containing not less than 95 per cent. of commercially pure lead (the remainder consisting of rarer metals) and in other respects complying with paragraph (a) of this regulation.

BRAIDING.

23-51. Braided cables shall have an exterior braiding of hemp, cotton, jute, or other suitable material, thoroughly impregnated with a protective compound that will not have any deleterious action on the rubber or armouring, as the case may be.

FLEXIBLE CABLES AND CORDS.

23-61. Flexible cables and flexible cords shall be provided with some one of the following coverings:—

- (a) Braiding of natural silk or of artificial silk; or
- (b) Glace-cotton braiding; or
- (c) Hemp, cotton, jute, or other suitable braiding thoroughly compounded; or
- (d) Wire armouring, comprising a flexible braiding of galvanized steel or bronze wire in addition to the covering specified in paragraph (c) of this regulation; or
- (e) Hard-cord braiding, plain or impregnated, in addition to the covering specified in paragraph (c) of this regulation; or
- (f) Tough rubber compound in accordance with Regulation 23-71 hereof; or
- (g) Flame-resisting braiding; or
- (h) Varnished cotton or silk waterproof braiding; or
- (i) Thin tough rubber compound over twisted conductors; or
- (j) Rubber compound with braiding overall; or
- (k) Thin tough rubber compound over conductors made up to a circular or oval section with hemp, cotton, or jute filling.

TOUGH RUBBER SHEATHING.

23-71. Tough rubber compound when used as a protective covering shall—

- (a) Form a closely fitting sheath filling the external irregularities of the laid-up cores in the case of twin and multicore cables or flexible cords and concentric with the conductor in the case of single core; and
- (b) Be waterproof and capable of offering a high degree of resistance to abrasion and decay; and
- (c) Have a radial thickness not less than that specified in British Standard Specification No. 7, or Table VIII in Division VII hereof, as the case may be.

ALTERNATIVE MATERIAL OR TYPES.

23-81. If it is desired to use a type of cable or flexible cord otherwise than specified in Regulations 23-01 and 23-12 to 23-71 (both inclusive) hereof, permission shall be obtained from the Chief Electrical Engineer for its use provisionally or otherwise. The Chief Electrical Engineer may require to be submitted samples and/or a report from a recognized testing authority (such as the National Physical Laboratory in England) as to the behaviour, properties, and life of the materials employed.

IDENTIFICATION OF CABLES AND FLEXIBLE CORDS.

23-91. (1) All insulated cables other than flexible cables shall, except as provided in clause (3) of this regulation, be rendered distinguishable by means of the following colours:—

- A.C. three-phase and D.C. three-wire systems of wiring—
- (a) Live conductor—Red, yellow, or blue.
- (b) Neutral, earthed conductor or middle-wire—Black.

D.C. two-wire systems of wiring—

- (c) Positive—Red, yellow, or blue.
- (d) Negative—Black.

A.C. two-wire non-earthed systems of wiring—

- (e) One conductor—Red, yellow, or blue.
- (f) Other conductor—Black.

(2) All insulated flexible cords and all insulated flexible cables shall, except as provided in clause (3) of this regulation, be coloured in such a manner that each conductor may be readily identified.

(3) This regulation does not apply to any three-core cable used solely for three-phases or to any conductor used as an aerial conductor or enclosed within a current-using device or used for high pressure or extra-high pressure in connection with luminous-discharge-tubes.

(4) For the purposes of this regulation a conductor shall be deemed to be alive up to the lamp or other current-using appliance when the switch is in the "on" position.

PART 24.—CONDUIT AND CASING.

SCREWED CONDUIT AND FITTINGS.

24-01. Screwed conduit and fittings shall comply with the following requirements:—

- (a) The conduit shall be made in accordance with British Standard Specification No. 31 and shall be of heavy gauge and welded or solid drawn.
- (b) The conduit fittings, other than boxes, shall be made in accordance with British Standard Specification No. 31.
- (c) The conduit boxes shall be—
 - (i) Where applicable made in accordance with British Standard Specification No. 31:
 - (ii) Rectangular boxes of sheet steel or other approved metal, in either case having a minimum thickness of 0.0625 in. ($\frac{1}{16}$ in.):
 - (iii) Cast-iron terminal boxes specially designed as part of a complete accessory, and where such boxes are not malleable cast-iron they shall be approved.
- (d) The screwed portion of bell-mouths and other outlets shall be provided with a taper thread and shoulder to prevent the conduit projecting, or shall be of the length specified in British Standard Specification No. 31.
- (e) Bell-mouths and other outlets shall be of robust construction.

WOOD CASING.

24-11. Wood casing for enclosing cables shall be of well-seasoned timber, and shall be so constructed that the width of the fillet between the grooves is not less than $\frac{1}{2}$ in. and the thickness of the wood everywhere else not less than $\frac{1}{4}$ in.