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Cable trunking —

Part 4: Specification for cable trunking made of insulating material

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Foreword

This Part of this British Standard has been prepared under the direction of the Power Electrical Engineering Standards Committee. It specifies requirements for cable trunking made of insulating material.

Other Parts of this standard are as follows.

- *Part 1: Steel surface trunking;*
- *Part 2: Steel underfloor (duct) trunking;*
- *Part 3: Steel lighting trunking (in course of preparation).*

The definitions of “basic insulation” and “supplementary insulation” given in **3.5** and **3.6** are identical with those given in BS 2754, as amended by Amendment No. 1, in accordance with the strong recommendation of that standard. The fire tests specified in clauses **10** and **11** are based on tests specified in BS 6099.

An additional clause dealing with “external influences”, e.g. the presence of water, oil, building materials or corrosive or polluting substances, is currently under consideration and is expected to be added by the issue of an amendment in due course.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Part of this British Standard specifies dimensions and performance requirements for non-flame propagating cable trunking made of insulating material. It also specifies a system of classification for cable trunking according to its material and properties.

2 References

The titles of the standards publications referred to in this standard are listed on the inside back cover.

3 Definitions

For the purposes of this Part of this British Standard the following definitions apply.

3.1

cable trunking

a system of enclosures for the protection of conductors or cables, assembled together by means of couplers and allowing cables or conductors to be laid in

3.2

coupler

a device for joining together lengths of cable trunking

3.3

insulating trunking

a trunking that consists of insulating material and that has no conductive components

3.4

non-flame propagating trunking

a trunking that is liable to ignite as a result of applied flame, but in which the flame does not propagate and is extinguished within a limited time after the applied flame is removed

3.5

basic insulation

insulation applied to live parts to provide basic protection against electric shock

NOTE Basic insulation does not necessarily include insulation used exclusively for functional purposes.

3.6

supplementary insulation

independent insulation applied in addition to basic insulation in order to provide protection against electric shock in the event of failure of basic insulation

NOTE to 3.5 and 3.6 These definitions of “basic insulation” and “supplementary insulation” are identical with those given in BS 2754, as amended by Amendment No. 1 and in IEC Report 536, published by the International Electrotechnical Commission (IEC).

4 Classification

When compliance with the requirements of clauses 8 to 12 has been established, cable trunking shall be classified under the following headings, as appropriate.

a) *According to material.*

b) *According to mechanical properties:*

- 1) trunking for medium mechanical stresses;
- 2) trunking for heavy mechanical stresses;

c) *According to temperature tolerance* (see Table 1).

d) *According to electrical characteristics:*

- 1) trunking without electrical insulating characteristics;
- 2) trunking with electrical insulating characteristics.

e) *According to resistance against ingress of solid objects:*

- 1) non-protected trunking;
- 2) trunking protected against solid objects greater than 1.0 mm (IP4X);
- 3) dust-protected trunking (IP5X);
- 4) dust-tight trunking (IP6X).

f) *According to resistance against ingress of water:*

- 1) non-protected trunking;
- 2) trunking protected against dripping water (IPX2);
- 3) trunking protected against spraying water (IPX3);
- 4) trunking protected against splashing water (IPX4);
- 5) trunking protected against water jets (IPX5).

NOTE The categories of items e) and f) are taken from BS 5490:1977.

g) *According to resistance against corrosive or polluting substances:*

- 1) non-protected trunking;
- 2) trunking with low protection;
- 3) trunking with medium protection;
- 4) trunking with high protection.

h) *According to resistance against flame propagation:*

- 1) non-flame propagating trunking;
- 2) flame propagating trunking.