

Technical Note

TN31: The Use of Plastic Cable Ties and Fixings at High Level



First published in Amendment 3 of the 17th edition of BS7671 the Electrical Wiring Regulations in 2015, the intention of the following regulation has been around for some time. However, since the publication of the 18th Edition in 2018, the wording has gained renewed clarity as it has been changed.

Previously, it stated:

521.11.201

'Wiring systems in escape routes shall be supported that they will not be liable to premature collapse in the event of a fire'

'The requirements of the regulation 422.2.1 shall also apply irrespective of the classification of the conditions for evacuation in an emergency'

It now states the following: (Note. the words 'escape routes' have been removed)

521.10.202

'Wiring systems shall be supported such that they will not be liable to premature collapse in the event of a fire'

NOTE 1: Wiring systems hanging across access or egress routes may hinder evacuation and firefighting activities.

NOTE 2: Cables installed in or on steel cable containment systems are deemed to meet the requirements of this regulation.

NOTE 3: This regulation precludes, for example, the use of non-metallic cable clips or cable ties as the sole means of support where cables are clipped direct to exposed surfaces or suspended under cable tray, and the use of non-metallic cable trunking as the sole means of support of the cables therein.

NOTE 4: Suitably spaced steel or copper clips, saddles or ties are examples that will meet the requirements of this regulation

BS6701 also provides some further clarification on evacuation routes.

The use of space in modern buildings tends to change with time and it is increasingly difficult to predict which spaces will become evacuation routes. With a cabling system having a design life exceeding 15 years, the common-sensical approach is to assume everywhere is, or could become, an evacuation route and cable accordingly.

It goes on to further clarify this with the following statement:

'For new installations and the refurbishment or extension of existing installations, cables installed in the spaces bounded by the external fire barriers of buildings and other structures shall meet the following requirements'

Conclusion

A combination of these two standards should make it very clear that plastic fixings and ties at high level anywhere within the building should not be the sole source of support for cables. They must either be placed on top of the tray. Alternatively metal 'J' hooks or metal ties must be used at regular intervals, the recommendation for the spacing of which is 1200mm.

This Technical Note has been produced by Paul Cave, Technical Manager, on behalf of Excel

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