

Technical Note

Loose Lay Cabling



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This item covers loose laying data cables within horizontal pathways. It has become common practice over the years to dress cables into bundles relating to the panels they have originated from. However there is nothing within any of the standards that actually calls for this practice and the only reference is to follow the manufacturer's installation guidelines.

With the increased density of cables within pathways it is now becoming more common to loose lay the cables on horizontal pathways without pulling them into tight uniform bundles along the entire length.

This is seen as acceptable for a number of reasons, with one clear caveat:

- It allows a better fill ratio within the basket, whilst ensuring that no one cable is subject to all the pressure of the other cables above, over a major proportion of its length.
- It ensures that no two cables run directly alongside each other for extended distances and therefore avoids the likelihood of spurious signals leeching between cables at higher frequencies, otherwise known as Alien Crosstalk.
- Furthermore, with the advent of PoE (Power over Ethernet) it is important to consider the dissipation of the heat that can possibly build up within bundles a fact that will only get worse when companies start to deploy PoE Plus, which has the possibility to deliver twice the power to end devices.

The Draft ISO/IEC - TR29125 - Telecommunications cabling requirements for remote powering of terminal equipment states one option to mitigate the potential heat build up is to loosen and separate the cable bundles.

Caveat:

This is not a licence for an untidy installation and care should be taken over the appearance of the cable. Where cables are run in trays or on cable matting, laid directly upon the floor slab, measures must be taken to ensure the cables remain neat and in place throughout their length, the recommended approach is to use hook & loop ties.

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

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