CHAPTER 52: WIRING SYSTEMS

WHY MUST CABLE SUPPORTS NOT COLLAPSE IN A FIRE?

CHAPTER 52: WIRING SYSTEMS

First, what the book means by the term. Look it up in **Part 2**:

> ? A **wiring system** is an assembly of cables or busbars together with the parts that **secure** and, if necessary, **enclose** them.

So conduit, trunking, cable tray, ducting, busbar and power track are all wiring systems. A consumer unit is an enclosure, but it isn't a wiring system.

TABLE 4A1 — WHAT YOU MAY INSTALL, AND HOW

In **Appendix 4**, Table 4A1 lists cable types against installation methods and tells you which are permitted.

CABLE	CLIPPED DIRECT	CONDUIT / TRUNKING	ON INSULATORS
Bare conductor	✗	✗	✓
Non-sheathed (single core)	✗	✓	✓
Multicore (e.g. twin & earth)	✓	✓	✓

> 🖐 **The classic confusion.** Twin & earth contains a bare CPC, so people conclude they're clipping a "bare conductor", which the table forbids. They aren't. That CPC is **part of a sheathed multicore cable**, and the multicore row is the one that applies. The bare-conductor row means a genuinely bare conductor on its own — overhead lines on insulators.

The same chapter gives you the **installation reference methods** you met in cable design: A, B, C and the numbered ones 100 to 103.

- **Part 2** · definition of a wiring system
- **521.4** · types of wiring system
- **Table 4A1** · permitted installation methods
- **Table 4A2** · installation reference methods

PREMATURE COLLAPSE IN THE EVENT OF A FIRE

One of the most quoted regulations in recent editions, and it has a reason behind it.

§ **521.10.202** — wiring systems shall be supported so that they are **not liable to premature collapse in the event of a fire**.

Why it exists.
In a fire, cables held only by plastic clips can come down when the plastic melts.

So **plastic clips alone are not a suitable method**. The cables need support that will not give way early in a fire.

WHERE	WHAT YOU'LL FIND
BS 7671 · **521.10.202**	The requirement: support against premature collapse in a fire (cited in Guidance Note 3, p.47)
On-Site Guide · **Appendix D**	Actual spacing tables, by cable diameter, horizontal and vertical — in **millimetres**

A rule of thumb from the trade:
clip spacing about elbow-to-wrist, or the width of your hammer. Fine on site, but the table is what's assessed.

521.10.202 · premature collapse in the event of a fire · cited in GN3 p.47

On-Site Guide · Appendix D · cable support spacings

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