CHAPTER 51: COMMON RULES

WHAT COLOUR SHOULD THE SWITCHED LINE BE?

CHAPTER 51: COMMON RULES

Chapter 51 opens with compliance with standards, then **512 — operational conditions and external influences**: voltage, current, **frequency** and compatibility.

> **UK frequency is 50 Hz**
> — fifty complete cycles of the AC waveform every second. It's why a phone camera picks up flicker from a light or a screen that your eye can't see.

512.1.5 — THE 70 °C RULE

> § Switchgear, protective devices, accessories and other equipment **shall not be connected to conductors intended to operate at a temperature exceeding 70 °C** unless the equipment is suitable for it.

This matters in practice. SWA comes in **70 °C** and **90 °C** versions depending on the insulation. The rule is about the conductor's **operating** temperature: a 90 °C cable sized to run above 70 °C must not be connected to an accessory built for 70 °C, because the heat at its terminals could break the accessory down. Either size the cable so it runs at no more than 70 °C, or use equipment suitable for the higher temperature.

COMPATIBILITY, AGAIN

Compatibility appeared in Part 3 earlier, and here it is again in Chapter 51. That's the pattern for the whole of Part 5: it constantly refers back to Part 3 and Part 4. The parts are not separate silos.

- **512** · operational conditions and external influences
- **512.1.5** · equipment not connected to conductors above 70 °C

IDENTIFYING CONDUCTORS BY COLOUR

Identification isn't only colour — the book also allows **alphanumeric labels, ferrules and clips**. But colour is what you'll be asked about.

CONDUCTOR	COLOUR NOW	OLD COLOUR
Line	Brown	Red
Neutral	**Blue**	Black
Protective (CPC, bonding, earthing)	**Green-and-yellow**	Green-and-yellow

% **Green-and-yellow is a 30/70 split.** One colour must cover between 30 % and 70 % of the surface, the other the remainder. Either way round — it doesn't matter which is which.

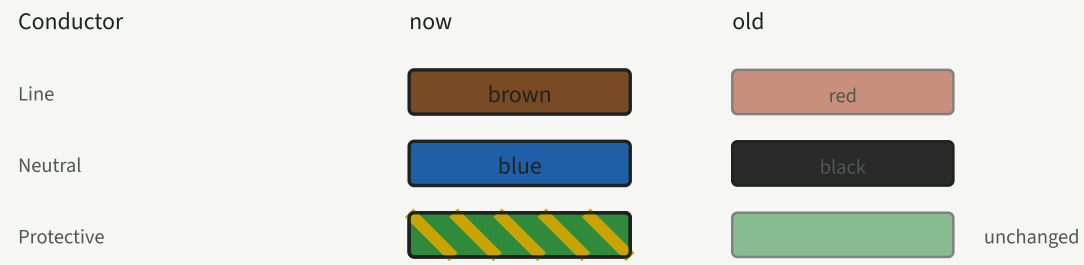
THE SWITCHED LINE, AND WHY SLEEVING MATTERS

In a loop-in-at-the-ceiling-rose lighting circuit, the **switched line** in the cable to the switch is a blue conductor being used as a line. It **must** be identified as a line — brown sleeving over the blue.

✋ Leave it blue and you're not following the regulation, and you've created a trap. A householder changing their own light switch later finds a blue conductor, assumes it's a neutral, and has no idea where it goes. Brown tape is acceptable but less durable than sleeving — it can pull off when conductors are disturbed.

514 · identification and notices

Table 51.1 · identification of conductors



Green-and-yellow is a **30/70 split** — one colour must cover between 30% and 70%. Neither can dominate.

Colour is not the only means of identification — the book also allows alphanumeric labels, ferrules and clips. But colour is what you get asked about.

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