SIZING EARTHING AND BONDING CONDUCTORS

HOW BIG DOES A MAIN BONDING CONDUCTOR NEED TO BE?

CSA (cross-sectional area) is the size of the **copper only**, not including the insulation. A 10 mm² bonding conductor has 7 strands.

> **Use the table, not a rule of thumb.** There is no "half the tails, rounded up" rule in the book: read both sizes off **Table 3.3.2a (TN-S)** or **Table 3.3.2b (PME)**. On **PME (TN-C-S)** main bonding is never below **10 mm²** (up to 35 mm² PEN); on **TN-S** it can be **6 mm²** for 6 and 10 mm² tails. The distributor may require a 16 mm² earthing conductor (see the notes under the table).
> Example (PME): `25 mm² tails` → table → `16 mm² earthing conductor` and `10 mm² main bonding`

TN-C-S (PME) · TABLE 3.3.2B

SUPPLY LINE/NEUTRAL (MM²)	EARTHING CONDUCTOR (MM²)	MAIN BONDING (MM²)
6	10	10
10	10	10
16	16	10
25	16	10
35	16	10
50	25	16
70	35	25

TN-S · TABLE 3.3.2A

LINE CONDUCTOR (MM²)	EARTHING CONDUCTOR, NOT BURIED (MM²)	MAIN BONDING (MM²)
6	6	6
10	10	6
16	16	10
25	16	10
35	16	10
50	25	16
70	35	25

Highlighted rows = typical domestic. Always check the tables in your own book: **Tables 3.3.2a and 3.3.2b**.

Electrician's Guide to the Building Regs · Tables 3.3.2a (TN-S) and 3.3.2b (PME): earthing and main protective bonding conductor sizes · **p.59**

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