

Metal Pattress vs Timber Backer

Whole-Life Carbon & ESG Perspective

Why this matters

As operational energy use reduces, **embodied carbon now represents a growing proportion of total building emissions**. UK Net Zero policy, ESG frameworks, and the proposed **Part Z** regulation increasingly require material choices to be assessed on a **whole-life basis**, not upfront carbon alone.

The application

Metal pattresses and timber backers are concealed secondary elements used to support fixings behind plasterboard. Despite their small size, they are widely used and installed early, making them relevant to **upfront embodied carbon decisions**.

Key sustainability outcomes

Metal pattress (steel backer):

- Uses less material to achieve required performance
- Long service life with no degradation
- Non-combustible
- Minimal site waste
- 100% recyclable with circular economy benefits (Module D)

Timber / plywood backer:

- Often oversized and generically installed
- Variable durability
- Combustible
- Generates mixed site waste
- Limited end-of-life recovery

Whole-life carbon view

While sustainably sourced timber can have lower **upfront** embodied carbon per kg, metal pattresses deliver advantages across **A–C lifecycle stages** and provide **Module D recycling benefits**, improving overall whole-life carbon performance.