Metal wall cladding and *feature panels*

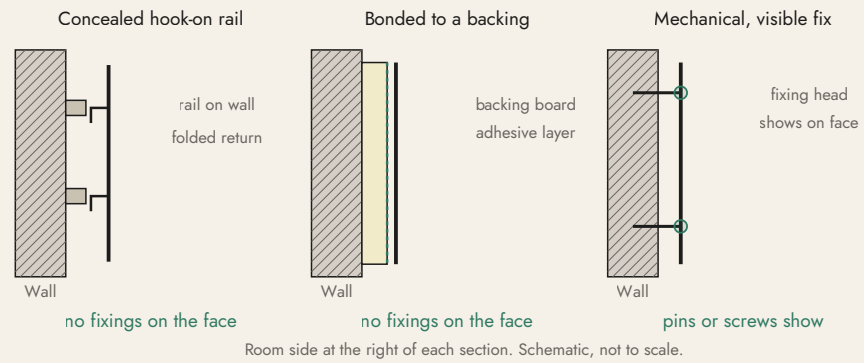
Thickness, flatness, oil-canning and fixing for interior metal wall panels, with weights per m2 and the fire classes for wall linings.

Compliance guidance. This is not fire-safety or engineering advice. Fire classes quoted are from Approved Document B Volume 2 (England) as read on 7 November 2026; the class of a panel comes only from its own BS EN 13501-1 report. The fixing of a wall panel is a safety matter: the partner workshop must design and test it for the wall behind and the likely knocks, and a heavy or high panel needs a structural engineer. No maximum panel sizes are given because none were verified.

AT A GLANCE

Metal	Density (g/cm3)	kg per m2 at 2 mm (computed)	What to expect
Aluminium	2.70	5.4	Lightest; common for folded and powder-coated or anodised panels; softer, marks and dents more easily.
Mild steel	7.85	15.7	Rigid and economical; needs a coating or a deliberate finish; rusts if it is scratched through.
Stainless 304	7.90	15.8	Corrosion-resistant face; grade and finish matter (see the stainless sheets); heavy for large panels.
Brass	8.45	16.9	Warm colour; tarnishes unless lacquered; weight and cost rise with thickness.
Copper	8.90	17.8	Develops a patina; lays flat only if the sheet is flat to begin with; heavy.

Weights are computed as density times thickness; real sheet varies a little. 1.5 and 3 mm figures are in the weights table below. Dense metals get heavy fast: check what the wall and fixings will carry.



Three fixing methods in section. Original drawing by Make Bespoke Studio, schematic and not to scale.

FIRE IN ONE LINE

Approved Document B (England), Table 6.1: D-s3, d2 in small non-residential rooms up to 30 m2, C-s3, d2 in other rooms, B-s3, d2 in other circulation spaces. The class belongs to the panel's own BS EN 13501-1 report.

SPECIFICATION WORDING

PANEL AND SAMPLE

Wall panels [ref]: [brass / stainless 304 / aluminium] sheet [2] mm, [finish], overall panel size [ ] × [ ] mm, joints [shadow gap [ ] mm / recessed butt]. Flatness of the face to be judged on the approved full-size sample under [raking light at [ ] degrees], dated [date]. The supplier states in writing that oil canning cannot be wholly excluded and proposes the measures taken (thickness, backing, stiffeners, finish) before quotation.

FIXING

Panels to be fixed by [concealed hook-on rail / bonding to a [ ] mm backing board / pins in slotted holes], designed and checked by [supplier] for the substrate [wall type], the panel weight [ ] kg and likely impact. Fixing drawings are submitted for approval. Dissimilar metals in contact are isolated. Panels are replaceable without damage to adjacent panels.

FIRE

Wall surface class of the panel build-up to be not worse than [C-s3, d2] to BS EN 13501-1 in [room], as required by the project fire strategy. The supplier submits the classification report for the exact build-up, including any core and adhesive, before ordering. Cored panels are sealed at joints and penetrations and are not used in high fire-risk areas unless A1 cored.

WEIGHT AND HANDLING

Panel weight [ ] kg including backing, confirmed in writing by [supplier]. Handling and installation method to be agreed with [contractor] before delivery.

TERMS USED

Oil canning

Visible waviness in the flat areas of metal panels, also called stress wrinkling or elastic buckling. A trade bulletin says total prevention cannot be assured.

Concealed hook-on rail

A fixing in which a rail screwed to the wall carries a panel by a folded return, leaving no fixings on the face.

Shadow gap

A recessed joint between panels that hides small misalignments and allows movement.

Euroclass

A reaction-to-fire class from A1 to F under BS EN 13501-1, with suffixes for smoke and flaming droplets.

STANDARDS AND SOURCES

- Approved Document B, Volume 2 (England): 2019 edition incorporating 2020 and 2022 amendments, collated with 2025, 2026 and 2029 amendments; Table 6.1, paras 6.4, 6.11, 12.15 read 7 Nov 2026. Check which amendments apply to your project.
- BS EN 13501-1:2018: BSI Knowledge, 7 Nov 2026: Current, published 31 January 2019. Not read.
- Metal Construction Association: oil canning bulletin: web summary read 7 Nov 2026; the full report was not opened. US trade body; written for roof and wall systems.

Full guide: https://makebespoke.com/trade/technical/metal-wall-cladding-and-feature-panels. Make Bespoke Studio coordinates manufacture through its partner workshops. Figures are guidance only and your specification governs; some may be superseded, so contact the studio to verify.