



Selecting the right
flooring material for use
on e-joint floor systems



FLOORING TYPES USED IN WESBEAM FLOOR SYSTEM DESIGN

Choosing the right floor for performance, cost, and compliance

At Wesbeam, floor systems are engineered as a complete structural solution.

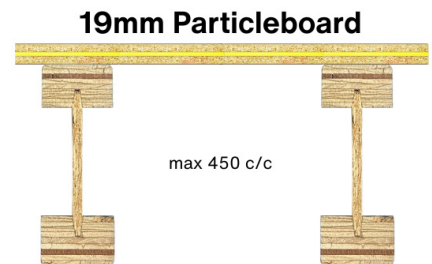
Selecting the correct flooring type is critical to ensure strength, span capability, durability, fire performance, and acoustic outcomes, all while meeting project budgets and intended use.

Below is an overview of the most common flooring types we specify, when they are best used, and why.

Particleboard Flooring (PB)

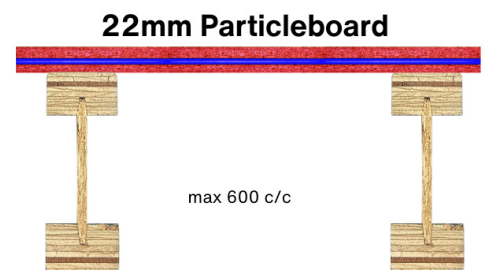
19mm Particleboard

Best suited for:	- Residential applications - Joist spacing up to 450mm centres
Why we use it:	- Most cost-effective flooring option Quick and easy installation - Suitable for dry internal areas
Limitations:	- Not recommended for wet areas - Minimal thermal and acoustic benefits
Typical use:	Budget-conscious residential floor systems where ease of installation is preferred



22mm Particleboard

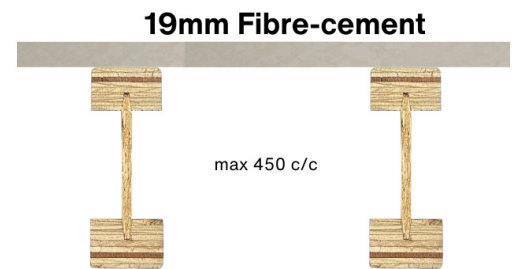
Best suited for:	- Residential floors at 600mm centres - Light commercial or office loads at 450mm centres
Why we use it:	- Allows wider joist spacing than 19mm PB - Maintains simple installation methods - Improves structural capacity - Improved dynamic performance where use on joists at 450mm centres
Limitations:	- Can be up to 50% more expensive than the same size 19mm PB sheets - Still not ideal for wet areas - Minimal thermal and acoustic improvement
Typical use:	Residential or light commercial projects where ease of installation is preferred



Fibre Cement (FC) Sheeting

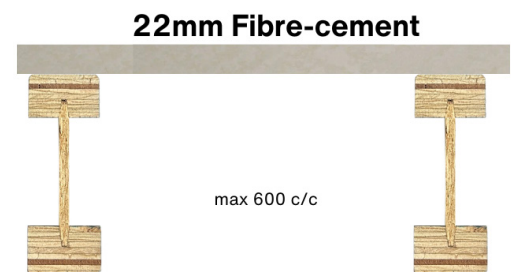
19mm Fibre Cement

Best suited for:	- Residential loads at 450mm centres - Wet areas, balconies, and exposed environments
Why we use it:	Moisture-resistant - Provides fire resistance - Improved durability compared to particleboard
Considerations:	- Higher cost than PB - Requires additional safety measures when cutting - Slight thermal and acoustic benefits
Typical use:	Bathrooms, laundries, balconies, and areas where waterproofing and tiling is to be applied



22mm Fibre Cement

Best suited for:	- Residential floors at 600mm centres - Commercial loads at 450mm centres
Why we use it:	- Similar benefits to 19mm FC with greater structural capacity - Fire-resistant and moisture-tolerant - Comparable pricing to 19mm FC per volume
Typical use:	Projects requiring waterproofing and tiling while maintaining wider joist spacing



Engineered Flooring Panels

35mm Alphafloor

Best suited for:	- Residential floors at 600mm centres - Commercial floors at 450mm centres
Why we use it:	- Significantly better thermal and acoustic performance - Stiffer panel reduces floor vibration - Suitable for higher performance living spaces
Considerations:	- Requires 63mm wide joists - Installation requires specific adhesives and fixings - Higher cost than PB and FC
Typical use:	Apartments, townhouses, or projects where comfort and acoustic control are priorities



Structural Panels

75mm AAC / Hebel Panels

Best suited for:	• Residential and commercial applications
Why we use it:	• Excellent thermal insulation • Superior acoustic performance • High fire resistance
Considerations:	• Requires specialised installation methods • Slightly higher cost than Alphafloor • Requires 63mm wide joists
Typical use:	Multi-residential, commercial, or fire-rated applications where performance outweighs cost



WHY WESBEAM CONSIDERS FLOORING AS PART OF THE SYSTEM

Flooring selection directly affects:

- Joist spacing and beam design
- Vibration
- Acoustic compliance
- Long-term durability and customer comfort
- Overall cost of the floor system

By designing the flooring and structural system together, Wesbeam ensures:



**Structural
efficiency**



**Compliance with
codes and performance
expectations**



**Optimised material
use and cost
certainty**



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