



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.

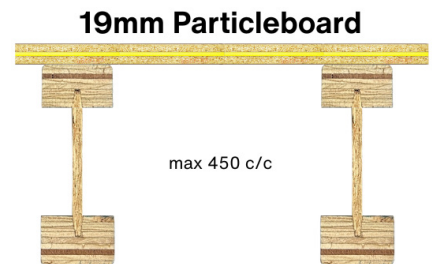
Selecting the correct flooring type is critical to ensure strength, span capability, durability, fire performance, and acoustic outcomes, all while meeting project budgets and intended use.

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

## Particleboard Flooring (PB)

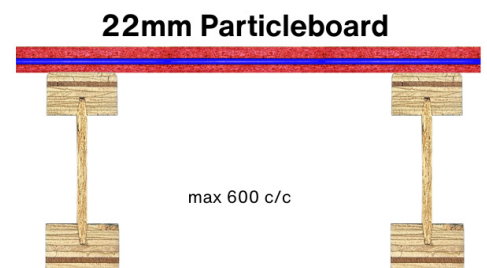
### 19mm Particleboard

<b>Best suited for:</b>	<ul style="list-style-type: none"><li>Residential applications</li><li>Joist spacing up to <b>450mm centres</b></li></ul>
<b>Why we use it:</b>	<ul style="list-style-type: none"><li>Most <b>cost-effective</b> flooring option</li><li><b>Quick and easy installation</b></li><li>Suitable for dry internal areas</li></ul>
<b>Limitations:</b>	<ul style="list-style-type: none"><li>Not recommended for wet areas</li><li>Minimal thermal and acoustic benefits</li></ul>
<b>Typical use:</b>	Budget-conscious residential floor systems where ease of installation is preferred



### 22mm Particleboard

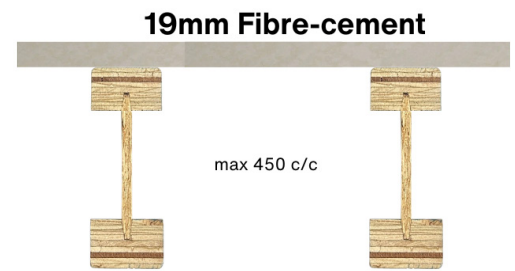
<b>Best suited for:</b>	<ul style="list-style-type: none"><li>Residential floors at <b>600mm centres</b></li><li>Light commercial or office loads at <b>450mm centres</b></li></ul>
<b>Why we use it:</b>	<ul style="list-style-type: none"><li>Allows <b>wider joist spacing</b> than 19mm PB</li><li>Maintains simple installation methods</li><li>Improves structural capacity</li><li>Improved dynamic performance where use on joists at 450mm centres</li></ul>
<b>Limitations:</b>	<ul style="list-style-type: none"><li>Can be up to <b>50% more expensive</b> than the same size 19mm PB sheets</li><li>Still not ideal for wet areas</li><li>Minimal thermal and acoustic improvement</li></ul>
<b>Typical use:</b>	Residential or light commercial projects where ease of installation is preferred



## Fibre Cement (FC) Sheeting

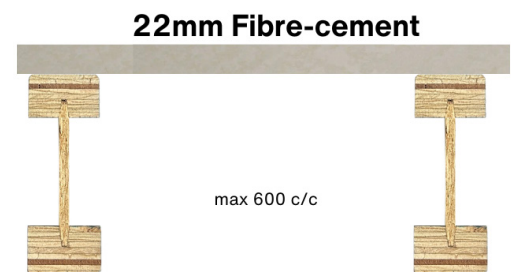
### 19mm Fibre Cement

<b>Best suited for:</b>	<ul style="list-style-type: none"><li>Residential loads at <b>450mm centres</b></li><li>Wet areas, balconies, and exposed environments</li></ul>
<b>Why we use it:</b>	<ul style="list-style-type: none"><li><b>Moisture-resistant</b></li><li>Provides <b>fire resistance</b></li><li>Improved durability compared to particleboard</li></ul>
<b>Considerations:</b>	<ul style="list-style-type: none"><li>Higher cost than PB</li><li>Requires <b>additional safety measures when cutting</b></li><li>Slight thermal and acoustic benefits</li></ul>
<b>Typical use:</b>	Bathrooms, laundries, balconies, and areas where waterproofing and tiling is to be applied



### 22mm Fibre Cement

<b>Best suited for:</b>	<ul style="list-style-type: none"><li>Residential floors at <b>600mm centres</b></li><li>Commercial loads at <b>450mm centres</b></li></ul>
<b>Why we use it:</b>	<ul style="list-style-type: none"><li>Similar benefits to 19mm FC with <b>greater structural capacity</b></li><li>Fire-resistant and moisture-tolerant</li><li>Comparable pricing to 19mm FC per volume</li></ul>
<b>Typical use:</b>	Projects requiring waterproofing and tiling while maintaining wider joist spacing



## Engineered Flooring Panels

### 35mm Alphafloor

<b>Best suited for:</b>	<ul style="list-style-type: none"><li>Residential floors at <b>600mm centres</b></li><li>Commercial floors at <b>450mm centres</b></li></ul>
<b>Why we use it:</b>	<ul style="list-style-type: none"><li>Significantly <b>better thermal and acoustic performance</b></li><li>Stiffer panel reduces floor vibration</li><li>Suitable for higher performance living spaces</li></ul>
<b>Considerations:</b>	<ul style="list-style-type: none"><li>Requires <b>63mm wide joists</b></li><li>Installation requires specific adhesives and fixings</li><li>Higher cost than PB and FC</li></ul>
<b>Typical use:</b>	Apartments, townhouses, or projects where comfort and acoustic control are priorities



## Structural Panels

### 75mm AAC / Hebel Panels

<b>Best suited for:</b>	<ul style="list-style-type: none"> <li>Residential and commercial applications</li> </ul>
<b>Why we use it:</b>	<ul style="list-style-type: none"> <li>Excellent <b>thermal insulation</b></li> <li>Superior <b>acoustic performance</b></li> <li>High <b>fire resistance</b></li> </ul>
<b>Considerations:</b>	<ul style="list-style-type: none"> <li>Requires <b>specialised installation methods</b></li> <li>Slightly higher cost than Alphafloor</li> <li>Requires 63mm wide joists</li> </ul>
<b>Typical use:</b>	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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