



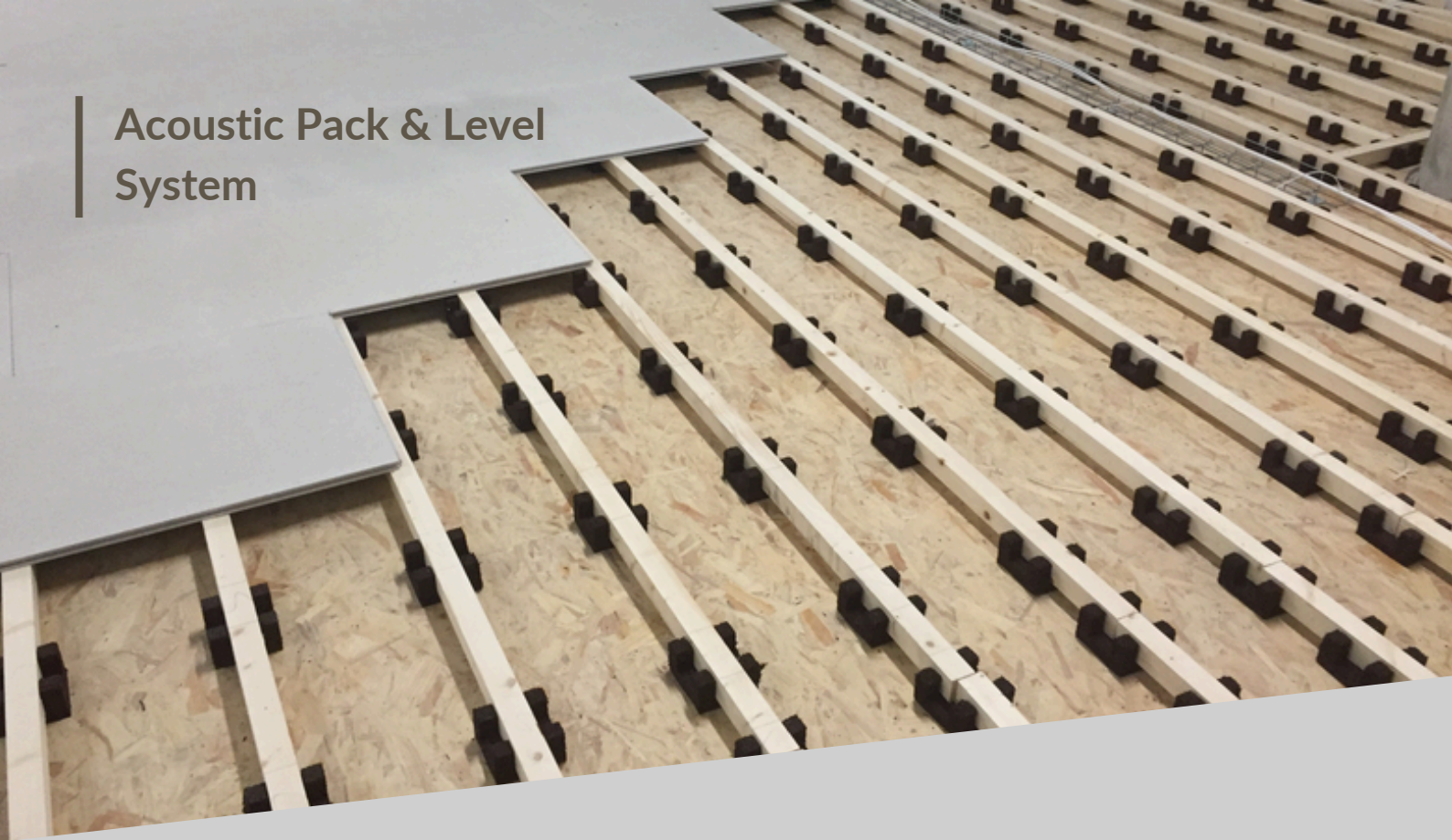
ECO-TEK

Sustainable Flooring Solutions

ECO-CRADLE

**Recycled Acoustic Rubber
Cradles**

Acoustic Pack & Level System



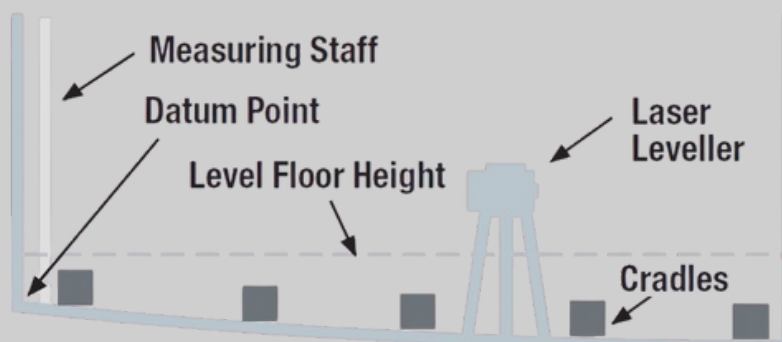
Recycled SBR Acoustic Rubber Cradles

ECO-Cradles and base packers are manufactured from high quality SBR rubber recycled from vehicle tyres. Together with our cradle packers, LVL beams and overlaid with suitable load distribution layers, they create a high performance acoustic subfloor.

Commonly used in refurbishment, conversion and new build projects, the ECO-Cradle is a versatile and environmentally friendly floor system able to provide adjustable finished floor heights. They also allow accurate and rapid on-site levelling to eliminate any unevenness in the structural floor surface.

Dry System with Lower Embodied Carbon

- ECO-Cradle exceeds acoustic performance requirements of UK Building Regulations ADE.
- Dry alternative to screed - System installed on damp-proof membrane above concrete slab and is suitable for residential and commercial projects.
- System provides significantly lower embodied carbon to traditional screed applications.
- Accurately levels uneven structural floors on-site



| Why Use The ECO-Cradle System

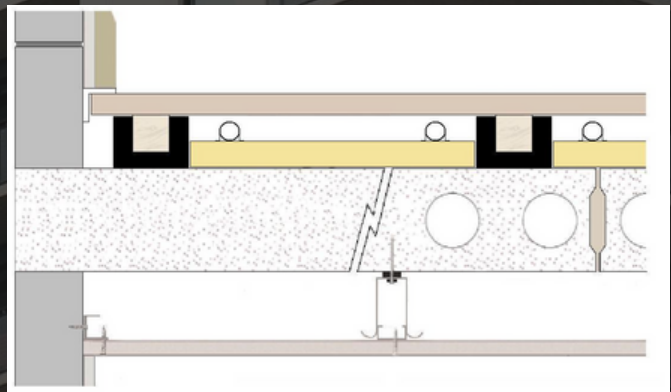
- Rubber cradles guaranteed for 60 years
- Fast, easy and cost-effective to install
- Cradles are loose laid and do not require fixing to subfloor
- Adjustable to produce varying finished floor heights
- On-site levelling to overcome uneven floors
- No levelling screeds or drying times needed (lower embodied carbon)
- Excellent acoustic performance
- System can provide a void for services/underfloor heating
- Can accept a range of floor finishes including ceramic tiles
- Hardwood floor boards can be secret nailed direct to LVL beams
- Structural loadings minimised due to lightweight system

Sustainable

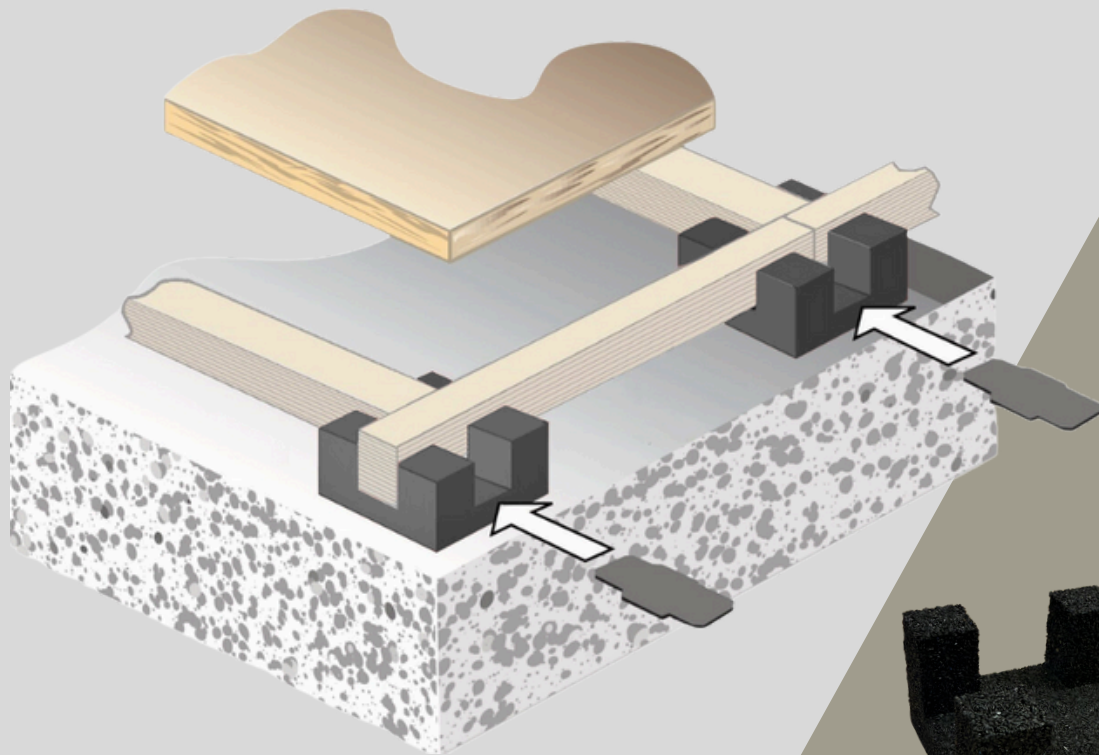
- Manufactured using recycled SBR rubber to provide robust performance
- Fully recyclable, genuine 'cradle-to-cradle' product

Applications

- Commercial
- Sports & fitness
- Student accommodation
- Residential
- Hospitality



| System Components



SBR Rubber ECO-Cradles

25/10 - 25mm Leg / 10mm Base

25/20 - 25mm Leg / 20mm Base

40/20 - 40mm Leg / 20mm Base

Cradle Packers

Interlock within cradles for fine levelling adjustment

2mm x 43mm (w) x 100mm (l)

5mm x 43mm (w) x 100mm (l)

SBR Rubber Base Packers

Interlock into base of acoustic cradle for levelling/height adjustment

10mm x 100mm x 100mm

30mm x 100mm x 100mm

LVL Cradle Beams

Cradle beams set at 300mm or 400mm centres depending on loading

27mm (h) x 45mm (w) x 2400mm (l)

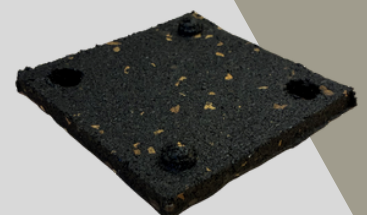
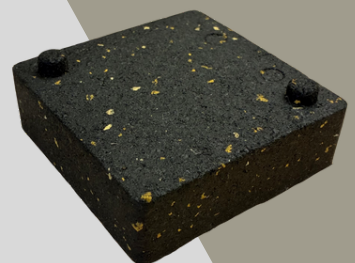
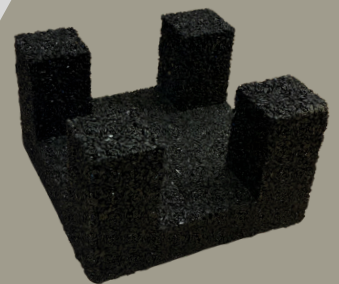
36mm (h) x 45mm (w) x 2400mm (l)

45mm (h) x 45mm (w) x 2400mm (l)

Load Distribution Layers

Typically a single 18mm board required, however for higher loading
2 x 18mm may be required.

18mm / 22mm TG4 Structural Flooring Boards





| Acoustic Performance

ECO-Cradle Acoustic Test Data

EC40/45 - Cradle beams set at 400mm Centres

Sound Lab Test - 150mm Concrete Structural Floor

No Ceiling Treatment

Airborne Sound Insulation

$R_w (C;Ctr) = 61\text{dB}$

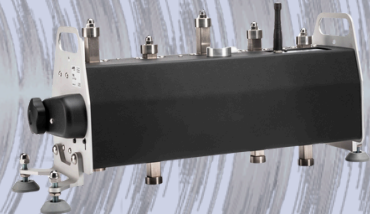
16dB Better than UK sound regulations



Impact Sound Insulation

$L_{n,w} = 49\text{dB}$

13dB Better than UK sound regulations



**Impact Sound
Improvement
28dB Delta L_w**

Field Sound Test - 200mm Concrete Structural Floor

Ceiling Treatment - MF Ceiling

Airborne Sound Insulation

$D_{nT,w} + C_{tr} = 64\text{dB}$

19dB Better than UK sound regulations

Airborne sound is measured by placing a loud speaker in a source room and playing a broad-spectrum noise to generate high sound pressure levels, typically over 100 dB. Microphones in both the source and adjacent receiver room measure the sound pressure levels, and the difference between the two is calculated.

Impact Sound Insulation

$L_{nT,w} = 39\text{dB}$

23dB Better than UK sound regulations

Impact sound is measured using a tapping machine with a set of calibrated hammers that repeatedly strike a floor, mimicking the sound of footsteps or dropped objects. A sound level meter is then used to measure the resulting noise in the room below, typically in third-octave bands from (100) Hz to (3150) Hz.




**Airborne Sound - Highest figure
demonstrates the best
performance**

**Impact Sound - Lowest figure
demonstrates the best
performance**

| Re-Thinking Flooring



Reduced Carbon Footprint

-  No concrete screeds – less transportation and less energy use, reduced CO2 emissions and lower levels of embodied carbon in the construction.
-  Reduced environmental impact – cradles are manufactured from recycled SBR rubber from worn truck tyres. Every 21 sqm of flooring saves 1 tyre from landfill and 5,000 sqm of flooring saves 235 tyres going to landfill.
-  Cradle to Cradle - cradles have a 60 year warranty and can be recycled at the end of their life.



**1 TRUCK TYRE RECYCLED
= 154 ECO-CRADLES
1000 SQM = 60 TRUCK
TYRES RECYCLED**

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