CMSDANSKIN
ACOUSTICS

Acoustic Bearers

Sound reduction
for separating floors

Acoustic Bearers

CMS Danskin Acoustics' range of resilient acoustic bearers is designed to reduce impact and airborne sound in a wide range of separating floors.

PARK BEARERS
for concrete subfloors

REFLEX BEARERS
for timber and steel joisted subfloors

T 01698 356000 / 01925 577711 E enquiries@cmsdanskin.co.uk W www.cmsdanskin.co.uk

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Benefits of
Acoustic Bearers

- Effective impact and airborne sound reduction for separating floors
- Creates a void for services under the floor
- Proven FFT accreditation for Robust Details and Scottish Example Constructions
- Eliminates the delays caused by screeds
- Use sustainable homegrown UK timber
- Suitable for both new build and refurbishment

ENVIRONMENT

Acoustic bearers incorporate sustainable timber. Wherever possible the timber used is homegrown to minimise transportation. The Global Warming Potential (GWP) of the resilient layers on the Park and Reflex Bearers is zero.

Acoustic Bearer **Product Selector**

Product	Uneven Subfloors	Level Subfloors (*1)	Compatible Subfloors (*2)							
			Cast Insitu	Precast Planks	Steel/ Concrete Composite	Beam & Block	Solid Timber Joists	Timber I Joists	Metal Web Joists	Steel Joists
Park Bearers	X	✓	✓	✓	✓	X	X	X	X	X
Reflex Bearers	X	✓	X	X	X	X	✓	✓	✓	✓

Notes: *1 - Maximum permissable deviation of 3mm from the underside of a 2m straight edge resting in contact with the floor surface.
*2 - When used with suitable ceiling construction. This table is indicative only. If uncertain, please check with CMS Danskin Acoustics.

Bearer Centres

Bearer centres must not exceed 400mm for 18mm chipboard or 600mm for 22mm chipboard based on a maximum UDL of 1.5kN/m^2 and concentrated load of 2 kN. Bearer centres should be reduced to 300mm where heavy loads are anticipated. e.g kitchens and bathrooms.

Where anticipated loads exceed these figures please contact CMS Danskin Acoustics.

Park Bearers

are designed for use on level concrete and steel/concrete composite separating floors as part of a suitable floor and ceiling construction.

Timber floating floors incorporating Park Bearers can provide effective sound insulation on concrete subfloors and eliminate the delays caused by the drying out of screeds.

The cavity created by acoustic bearers can accommodate service runs and underfloor heating systems under the floor.

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Park Bearers

consist of softwood timber battens 2400mm long by 45mm wide with a specially developed 9mm thick resilient foam strip adhered to the underside.

Length	Width (*1)	Height (*2)	Height Benchmark (*3)
2400mm	45mm	54mm	FFT3
2400mm	45mm	79mm	FFT1

Notes :

*1 - Park Bearers comply with the WPIF Code of Practice for Particle Board and OSB Floating Floors (3/2018) which specifies a minimum finished batten width of 45mm.

*2 - It is anticipated that the resilient layer will compress by around 2mm under a UDL of 25kg/m^2.

*3 - This refers to the batten height category. Please also refer to the FFT performance table on the next page for appropriate use.

Park Bearers
FFT Performance Qualification

Design Approach	Performance Requirements	Tested Performance
England & Wales Robust Detail Constructions (*1)		
E-FC-1 - Precast Concrete (min. FFT3 batten) E-FC-2 - In-situ Concrete (min. FFT3 batten) E-FC-7 - Beam and Block (min. FFT3 batten) E-FC-1 - Steel/ In-situ Concrete (min. FFT3 batten)	**FFT3** Batten to be at least 45mm high (compressed) Minimum rdΔ Lw 17dB	**54mm Park Bearer** rdΔ Lw 24dB
Scottish Robust Detail Construction		
V-FS-1 Steel/In-situ concrete (min. FFT3 batten)	**FFT3** Batten to be at least 45mm high (compressed) Minimum rdΔ Lw 17dB	**54mm Park Bearer** rdΔ Lw 24dB
Scottish Example Constructions		
Floor type 1B Insitu concrete slab with FFT **Floor type 2B** Precast concrete slab with FFT	**FFT3** Batten to be at least 45mm high (compressed) Minimum Δ Lw 22dB Minimum Δ Rw 5dB	**54mm Park Bearer** Δ Lw 26dB, Δ Rw 8dB

Note :

*1 - In Northern Ireland the England and Wales Robust Detail constructions are accepted as an alternative to pre-completion sound testing to demonstrate compliance with Part G (NI) for new dwellings.

Park Bearer **Accessories**

L-Shaped Flanking Strip for perimeter isolation.

Thickness: 6mm

Length: 1.8m

Acoustic quilt (as required). Laid between bearers for enhanced sound reduction.

Flooring Boards

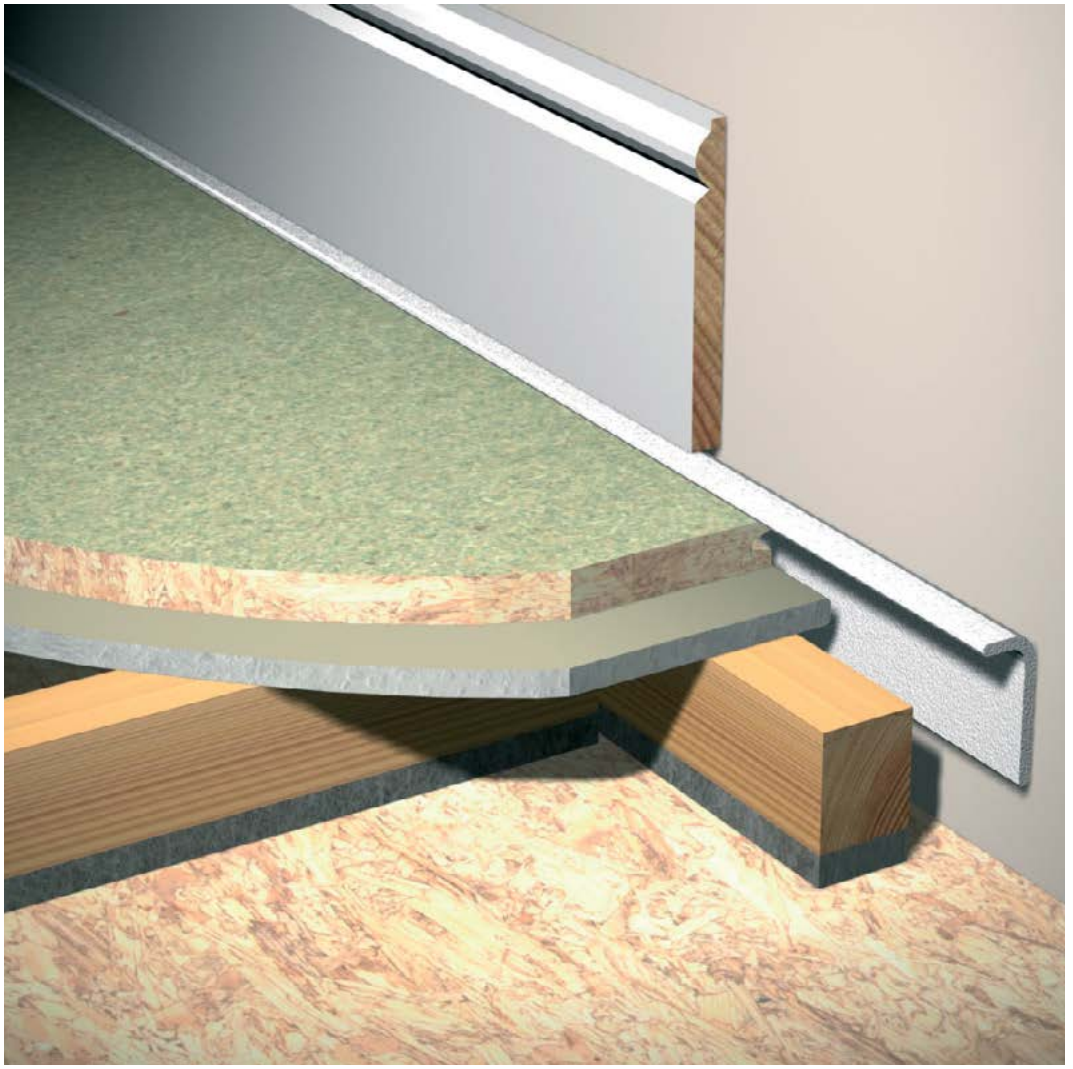
- Smartspan (for use with underfloor heating)
- P5 flooring grade chipboard
- Engineered Spruce flooring grade plywood

Reflex Bearers

CMS Danskin Acoustics have produced an innovative flooring bearer with an exceptional level of acoustic performance which contributes significantly to the reduction of impact and airborne sound through timber and steel joisted party floors.

The Reflex Bearer incorporates a unique resilient fibre layer which provides a high degree of impact sound reduction.

Reflex Bearers are ideal on level timber or lightweight steel joist subfloors as part of a suitable base floor and ceiling construction.



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Reflex Bearers

consist of softwood timber battens 2400mm long by 45mm wide with a unique fibre resilient layer adhered to the underside.

Length	Width (*1)	Height (*2)	Height Benchmark (*3)
2400mm	45mm	53mm	FFT3
2400mm	45mm	75mm	FFT1
2400mm	45mm	87mm	FFT80

Notes :

*1 - Reflex Bearers comply with the WPIF Code of Practice for Particle Board and OSB Floating Floors (3/2018) which specifies a minimum finished batten width of 45mm.

*2 - It is anticipated that the resilient layer will compress by around 4mm under a UDL of 25kg/m^2.

*3 - This refers to the batten height category. Please also refer to the FFT performance table on the next page for appropriate use.

Reflex Bearers
FFT Performance Qualification

Design Approach	Performance Requirements	Tested Performance
England & Wales Robust Detail Construction (*1)		
E-FT-1 - Timber I Joists (FFT1 batten) E-FT-2 - Timber Solid Joists (FFT1 batten) E-FT-3 - Metal Web Joists (FFT1 batten) E-FS-2 - Metal Joists (FFT1 batten)	**FFT1** Batten to be at least 70mm high (compressed) Minimum rdΔ Lw 15dB Minimum rdDelta Rw + Ctr 13dB	**75mm high Reflex Bearer** rdΔ Lw 22dB rdΔ Rw + Ctr 16dB
E-FT-7 - Timber I Joists (FFT80 batten) E-FT-8 - Timber Solid Joists (FFT80 batten)	**FFT80** Batten to be at least 80mm high (compressed) Minimum rdΔ Lw 16dB Minimum rdΔ Rw 17dB Minimum rdΔ Lw + Ctr 13dB	**87mm high Reflex Bearer** rdΔ Lw 23dB rdΔ Rw 18dB rdΔ Rw + Ctr 17dB
Scottish Robust Detail Construction		
V-FT-1 - Timber I Joists (FFT80 batten) V-FT-2 - Timber Solid Joists (FFT80 batten)	**FFT80** Batten to be at least 80mm high (compressed) Minimum rdΔ Lw 16dB Minimum rdΔ Rw 17dB Minimum rdΔ Lw + Ctr 13dB	**87mm high Reflex Bearer** rdΔ Lw 23dB rdΔ Rw 18dB rdΔ Rw + Ctr 17dB
Scottish Example Constructions		
Floor type 3A Timber Frame Floor with Solid Joists **Floor type 3B** Timber Frame Floor with Engineered I Joists	**FFT1** Batten to be at least 70mm high (compressed) Minimum Δ Lw 16dB Minimum Δ Rw 17dB Minimum Δ Rw + Ctr 13dB	**75mm high Reflex Bearer** Δ Lw 22dB Δ Rw 17dB Δ Rw + Ctr 16dB

Note :

*1 - In Northern Ireland these constructions are accepted as an alternative to pre-completion sound testing to demonstrate compliance with Part G (NI) for new dwellings.

Reflex Bearer **Accessories**

L-Shaped Flanking Strip for perimeter isolation.

Thickness: 6mm
Length: 1.8m

Acoustic quilt (as required). Laid between bearers for enhanced sound reduction.

High Load Bearers. An option in limited areas for additional support.

Flooring Boards

- Smartspan (for use with underfloor heating)
- P5 flooring grade chipboard
- Engineered Spruce flooring grade plywood

Our Commitment

The aim of CMS Danskin Acoustics is to correctly interpret the requirements of our customer and, where available, to offer appropriate evidence that our floating floors are suitable for use within their separating floor design. Where our customer requires specific acoustic design advice we will be pleased to assist in directing them to a suitably qualified acoustic consultant.

Floating floor treatments are only one part of a separating floor structure and the correct design, installation and workmanship of the total construction is essential to ensure satisfactory performance. Any evidence provided about the compatibility of a CMS Danskin Acoustics acoustic flooring product is dependent on the customer providing complete and accurate construction information.

The type of evidence which is necessary to justify the inclusion of our products is dependent on the approach taken by the customer to satisfy the regulations.

For each approach the evidence we can generally offer is as follows:

- Building Regulations Approved Document E Guidance Construction / Scottish Example Construction route - where available , laboratory test evidence that a CMS Danskin Acoustics product meets the minimum performance requirements for the relevant floor type as set out in the each document.
- Building Regulations Approved Document E / Section 5 / Part G Pre Completion Testing Route - where available, site test evidence of a similar construction demonstrating performance above the minimum standards. It is the customer's responsibility to establish whether this evidence is sufficient.
- Robust Detail Construction route - Where available, laboratory test evidence to demonstrate that the product or system meets the rdΔ Lw / rdΔ Rw / rdΔ Rw + Ctr specified in the relevant RD Document.

Installation

To ensure correct installation of floors the manufacturer`s detailed fixing instructions must be followed carefully. Copies of these instructions are available from CMS Danskin Acoustics.

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