

TVS Acoustic Flooring Range



TVS ACOUSTICS
NOISE & VIBRATION CONTROL



TVS ACOUSTICS

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TVS Acoustics is one of the UK's foremost specialists in the fields of acoustic suppression, noise and vibration control solutions. It is a key strategic division of the fast-growing and highly respected TVS Group, which also comprises TVS Sports Surfaces, TVS Gym Flooring and TVS Play Surfaces.

Over nearly two decades, TVS Acoustics has established an enviable reputation as one of the UK's leading suppliers and installers of acoustic floors to cinemas, bowling alleys, theatres and gyms as well as a wide variety of commercial and residential buildings. Our range of services, from noise and vibration surveys to specialist consultancy, and from bespoke manufacture of materials to supply and installation, is matched by our portfolio of prestigious clients and successful projects. Today TVS Acoustics can demonstrate an enviable track record in delivering acoustic, noise and vibration isolation solutions across a wide variety of sectors from construction and leisure to industrial, HVAC and structural engineering markets.

By offering clients a comprehensive service, from initial technical analysis and solution strategies, to the efficient on-site installation of high quality materials and systems, TVS Acoustics aims to exceed the expectations of our customers.

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TVS ACOUSTIC FLOORING RANGE

CONTENTS



Acousticork Underlay and Underscreed Overview	4-5
TVS Underlays	6
T66 Acoustic Underlay	7
T82 Acoustic Underlay	8
T22 Acoustic Underlay.....	9
TVS Underscreeds	10
U22 Acoustic Underscreed	11
U85 Acoustic Underscreed	12
U71 Acoustic Underscreed.....	13
TVS Construction Mat	14-15
TVS Acoustic Floating Floors Overview	16
TVS RESi Floating Floor System	17-19
TVS Spring Jack Up Floors	20-21
Case Studies	22-23

TVS ACOUSTICS

TVS Acoustic Underlay and Underscreed materials have been developed to be used to reduce the passage of sound through a floor/ceiling construction. Whilst most commonly used in floor constructions between dwellings to meet the requirements of Approved Document Part E, these materials can offer valuable acoustic performance in all types of construction including schools, gyms, supermarkets, hospitals and warehouses.

Building Regulations – Approved Document Part E

Part E came into effect on 1 July 2003 and detailed acoustic performance requirements between and within dwellings in England and Wales. Along with the performance requirements, Part E also established a need for Pre-Completion Testing to enforce these standards and suggested a range of constructions for appropriate elements. Both newbuild dwellings and those new dwellings created by what Part E describes as “Material Change of Use” are covered. Material Change of Use relates to what would be more commonly known as refurbishment and conversion work.

The performance requirements detail both the airborne and impact sound insulation that must be achieved from the full floor/ceiling build up.

	Airborne sound insulation $D_{n,T,w} + C_{tr}$ dB (Minimum values)	Impact sound insulation $L'_{n,T,w}$ dB (Maximum values)
Purpose-built dwelling house and flats		
Walls	45	-
Floors and stairs	45	62
Dwelling-houses and flats formed by material change of use		
Walls	43	-
Floors and stairs	43	64

However, Section 3 of the document provides advice regarding suitable constructions and build-ups that is of importance when looking at acoustic underlay and underscreed materials.



Acoustic Underlay Materials

The purpose of an acoustic underlay material is to reduce the impact sound at the source. Installed directly beneath the final floor finish, these resilient layers are particularly essential when a hard, solid floor finish is to be used.

Approved Document Part E provides a target weighted reduction in impact sound pressure level (ΔL_w) of not less than 17dB when measured in accordance with BS EN ISO 140-8. This laboratory measured figure is the improvement in impact sound that the acoustic underlay **AND** the final floor finish will achieve, over the performance of the concrete base slab alone.

When specifying these materials, it is essential to consider the surface finish that will be laid on top in order to ensure the floor system as a whole feels right under foot and is durable, as well as providing the desired acoustic performance.

Acoustic Underscreed Materials

TVS's range of underscreed isolation materials provide a resilient layer between the main structure of a building and all types of floor screed. This resilient layer acts to reduce the transmission of vibrations in the screed transmitting into the main structure, improving both the impact and the airborne acoustic performance of the overall floor construction.

Whilst the addition of the resilient layer underneath the floated screed will significantly minimise airborne sound, varying the type of this underscreed material will consequently have an effect on the degree of improvement in impact sound transmission. For this reason, it is easiest to provide comparison between underscreed materials by using the laboratory tested ΔL_w impact improvement figure (measured in accordance with BS EN ISO 140-8). This is the improvement in impact sound that the addition of the resilient layer and the screed provides, over the performance of the base concrete slab.



TVS Underlay

Solutions for different types of final flooring

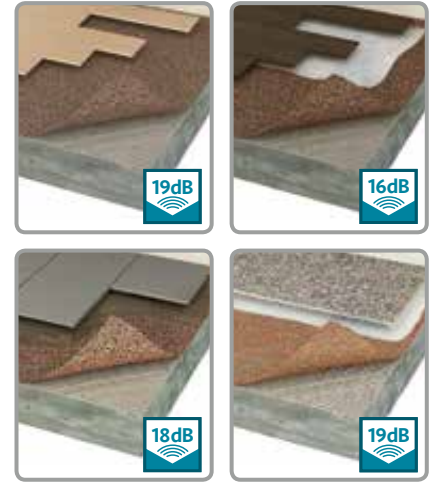


Flooring		Underlay		
		T66	T82*	T22
Non-Glued Laminate	Thickness	3mm	-	-
	ΔL_w	19dB	-	-
	IIC	47dB	-	-
Glued-Down Wood	Thickness	3mm	-	4mm
	ΔL_w	16dB	-	20dB
	IIC	50dB	-	49dB
Ceramic (or Natural Stone)	Thickness	3mm 4.5mm	-	-
	ΔL_w	16dB 18dB	-	-
	IIC	51dB 52dB	-	-
LVT	Thickness	3mm	2mm	-
	ΔL_w	19dB	17dB	-
	IIC	51dB	-	-

*Tested according to MMFA/EPLF requirements

MATERIAL DESCRIPTION & PROPERTIES

Good Insulation of Footfall and Impact Noise
 Excellent Thermal Resistance
 Suitable for All Types of Final Floors Including Heated Floor Systems
 100% Recycled and Sustainable Product



$\Delta L_w = 16dB - 19dB$

Recycled underlay for all types of flooring

 **Product Description**

Agglomerated cork and recycled rubber, underlay for impact noise reduction and thermal insulation. Suitable for floating, hardwood, vinyl, linoleum and ceramic floors.

 **Thermal Properties** (ISO 8301)

Thermal Conductivity:
 0,08 W/mK
Thermal Resistance:
 0,027m² K/W

Physical and Mechanical Properties

Specific Weight ⁽¹⁾	Tensile Strength ⁽¹⁾	Compression at 0,7MPa ⁽¹⁾	Recovery after 0,7MPa ⁽¹⁾	Lifetime of floor finish
600-700Kg/m ³	>800KPa	15%	>75%	10 years

⁽¹⁾ISO 7322

Impact Sound Insulation Test Results

Flooring	Thickness (mm)	ΔL_w (dB) ⁽¹⁾	IIC (dB) ⁽²⁾
Non-Glued Laminate	3	19	47
Glued-Down Wood	3	16	50
	3	16	51
Ceramic (or Natural Stone)	4.5	18	52
	3	19	51

⁽¹⁾ISO 10140-3 & ISO 717-2 • ⁽²⁾ASTM E492-09 & ASTM E989-06

Standard Dimensions

Thickness (mm)	Width (m) x Length (m)
3	1 x 15
4.5	1 x 15

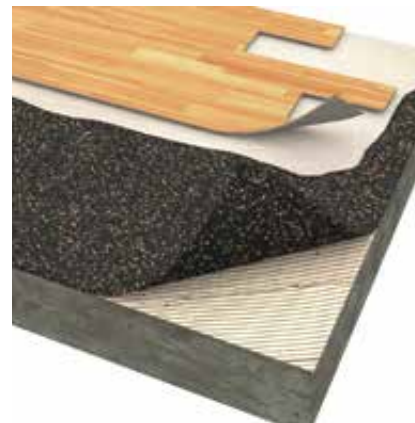
Others sizes available upon request



T82 ACOUSTICORK

MATERIAL DESCRIPTION & PROPERTIES

Produced from Recycled and Natural Materials
 Impact Noise Reduction and Thermal Insulation Properties
 High Performance with Reduced Thickness
 Perfect to Level Small Localized Uneven Areas



$\Delta L_w = 17\text{dB}$

LVT – Luxury Vinyl Tile



Product Description

Agglomerated cork and recycled polyurethane underlay for impact noise and thermal insulation.



Thermal Properties

Thermal Conductivity: 0,055 W/mK⁽¹⁾
⁽¹⁾ISO 8301

Physical and Mechanical Properties

Specific Weight ⁽¹⁾	Tensile Strength ⁽²⁾	Compression at 0,7MPa	Recovery after 0,7MPa ⁽¹⁾	Alongation at break ⁽²⁾
430±50Kg/m ³	>800KPa*	<30%	>75%	>40%

⁽¹⁾ISO 7322 • ⁽²⁾DIN 53571
 *Longitudinal

Impact Sound Insulation Test Results

Flooring	Thickness (mm)	ΔL_w (dB) ⁽¹⁾
LVT	2	17*

*Test performed with self-adhesive LVT and floating LVT • ⁽¹⁾ISO 10140-1, ISO 10140-3 & ISO 10140-4

Standard Dimensions

Thickness (mm)	Width (m) x Length (m)
2	1 x 15

Others sizes available upon request



Protection Against Static Loads

Residual Indentation: <0,2mm⁽¹⁾
⁽¹⁾EN ISO 24343-1: 2012



Castor Chair Resistance

Pass



MATERIAL DESCRIPTION & PROPERTIES

100% Recycled Material
 Impact Noise Reduction and Thermal Insulation Properties
 High Durability and Long Term Resilience
 High Performance with Reduced Thickness



$\Delta L_w = 20dB$

Glued-Down Wood



Product Description

Agglomerated recycled rubber underlay for impact noise and thermal insulation.



Thermal Properties

Thermal Conductivity: 0,140 W/mK⁽¹⁾
⁽¹⁾ISO 8301

Physical and Mechanical Properties

Specific Weight ⁽¹⁾	Tensile Strength ⁽²⁾	Compression at 0,7MPa ⁽³⁾	Recovery after 0,7MPa ⁽³⁾
650–750Kg/m ³	>350KPa	20%	>80%

⁽¹⁾ASTM F1315 • ⁽²⁾ASTM F152 • ⁽³⁾ASTM F36

Impact Sound Insulation Test Results

Flooring	Thickness (mm)	ΔL_w (dB) ⁽¹⁾	IIC (dB) ⁽²⁾
Glued-Down Wood	4	20	49

⁽¹⁾ISO 10140-3 & ISO 717-2 • ⁽²⁾ASTM E492-09 & ASTM E989-06

Standard Dimensions

Thickness (mm)	Width (m) x Length (m)
4	1 x 15

Others sizes available upon request



TVS Underscreed

Ensures high impact sound insulation in flooring screed applications



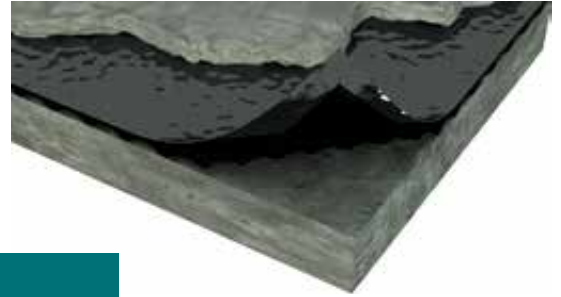
Underscreed



Thickness (mm)	Underscreed				
		U22	U85	U71	Construction Mat
4	ΔL_w	22dB	-	-	-
	IIC	50dB	-	-	-
8/4 (dimpled)	ΔL_w	23dB	-	-	-
	IIC	51dB	-	-	-
10/5 (dimpled)	ΔL_w	-	27dB	-	-
	IIC	-	52dB	-	-
16/9 (dimpled)	ΔL_w	-	-	-	33dB
	IIC	-	-	-	-
17/8 (dimpled)	ΔL_w	-	-	29dB	-
	IIC	-	-	49dB	-

MATERIAL DESCRIPTION & PROPERTIES

Impact Noise Reduction and Thermal Insulation Properties
 Very Easy to Handle and Long Term Resilience
 100% Recycled Material
 Very Flexible



$\Delta L_w = 22\text{dB}-23\text{dB}$

Floating Screed



Product Description

Agglomerated recycled rubber resilient layer for impact noise insulation of floating screed.



Thermal Properties

Thermal Conductivity: 0,140 W/mK⁽¹⁾
⁽¹⁾ISO 8301

Physical and Mechanical Properties

Specific Weight ⁽¹⁾	Dynamic Stiffness ⁽²⁾	Tensile Strength ⁽³⁾	Recovery after 0,7MPa ⁽⁴⁾
650-750Kg/m ³	20MN/m ³	>350KPa	>80%

⁽¹⁾ASTM F1315 • ⁽²⁾ISO 9052-1 & ISO 7626-5 • ⁽³⁾ASTM F152 • ⁽⁴⁾ASTM F36

Impact Sound Insulation Test Results

Thickness (mm)	ΔL_w (dB) ⁽¹⁾	IIC (dB) ⁽²⁾
4	22	50
8/4	23	51

⁽¹⁾ISO 10140-3 & ISO 717-2 • ⁽²⁾ASTM E492-09 & ASTM E989-06

Standard Dimensions

Thickness (mm)	Width (m) x Length (m)
4	1 x 15
8/4	1 x 15

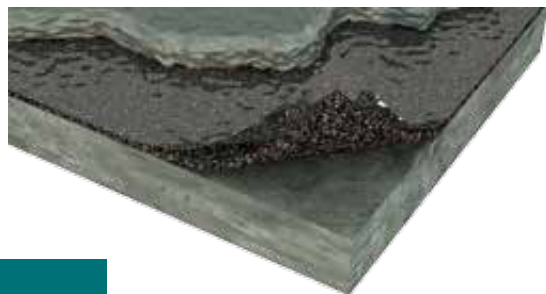
Others sizes and thicknesses available on request.



U85 ACOUSTICORK

MATERIAL DESCRIPTION & PROPERTIES

Impact Noise Reduction and Thermal Insulation Properties
 Very Easy to Handle and Long Term Resilience
 Produced from Recycled and Natural Material
 Very Flexible



$\Delta L_w = 27\text{dB}$

Floating Screed



Product Description

Agglomerated cork with recycled polyurethane resilient layer for impact noise insulation of floating screed.



Thermal Properties

Thermal Conductivity: 0,055 W/mK⁽¹⁾
⁽¹⁾ISO 8301

Physical and Mechanical Properties

Specific Weight ⁽¹⁾	Dynamic Stiffness ⁽²⁾	Tensile Strength ⁽³⁾	Recovery after 0,7MPa ⁽⁴⁾
230–300Kg/m ³	27MN/m ³	>100KPa	>70%

⁽¹⁾ASTM F1315 • ⁽²⁾ISO 9052-1 & ISO 7626-5 • ⁽³⁾ASTM F152 • ⁽⁴⁾ASTM F36

Impact Sound Insulation Test Results

Thickness (mm)	ΔL_w (dB) ⁽¹⁾	IIC (dB) ⁽²⁾
10/5	27	52

⁽¹⁾ISO 10140-3 & ISO 717-2 • ⁽²⁾ASTM E492-09 & ASTM E989-06

Standard Dimensions

Thickness (mm)	Width (m) x Length (m)
10/5	1 x 10

Others sizes and thicknesses available on request.





MATERIAL DESCRIPTION & PROPERTIES

- High Durability and Long Term Resilience
- Highly Effective Impact Noise Insulation
- 100% Recycled and Sustainable Product
- Very Flexible

$\Delta L_w = 29dB$

Floating Screed – 100% Recycled Noise Reduction Underscreed

Product Description
 Agglomerated recycled crumb rubber for impact and airborne noise insulation of floating slabs.

Thermal Properties
Thermal Conductivity: 0,140 W/mK⁽¹⁾
Thermal Resistance: 0,121 K/W
⁽¹⁾ISO 8301

Impact Sound Insulation Test Results (ISO 140 & 717)
 $\Delta L_w = 29dB$ (ITeCons ACU 472/12)

Standard Dimensions

Thickness (mm)	Width (m) x Length (m)
17/9	1 x 9

Others sizes available upon request

Physical and Mechanical Properties (ISO 7322)

- Specific Weight:** 6.0 Kg/m²
- Dynamic Stiffness:** 18 MN/m³
- Tensile Strength:** > 600 KPa
- Recovery:** > 90%
- Load Bearing:** up to 5.0 Kg/m²
- Durability:** Lifetime of the building





TVS Construction Mat

$\Delta L_w = 33\text{dB}$

APPLICATIONS

- Impact noise insulation underneath screed flooring
- Supermarkets • Hotels • Fitness studios
- Hospitals and nursing homes • Production halls and warehouses



TVS Construction Mat

$\Delta L_w = 33\text{dB}$



Physical Information

Material: 100% polyurethane

Colour: Olive-green

Load Range: 2,500kg/m²

Thickness: 16mm

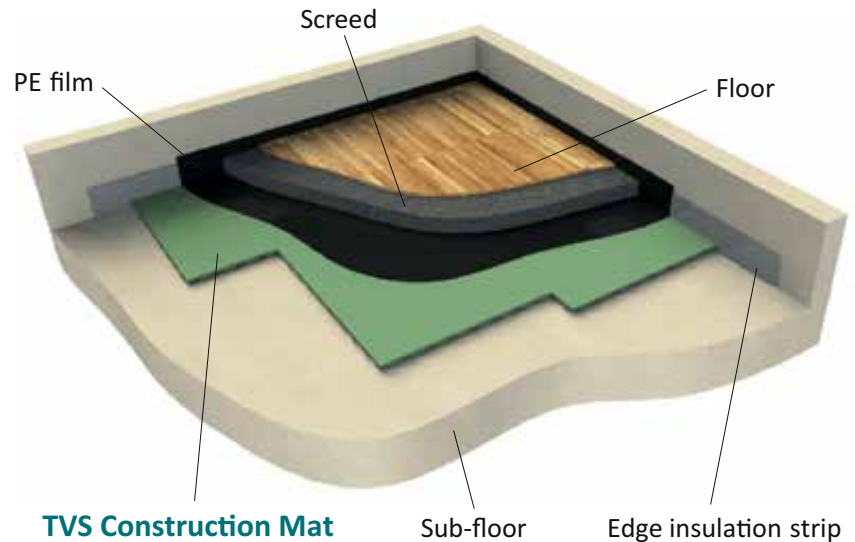
Dyn. Rigidity s': ≤13 MN/m³ (EN 29052-1)

Compressibility c(dL-dB): ≤2mm (EN 12431)

Fire Resistance: Class E (EN ISO 11925-2)
normal flammable, EN 13501-1

Thermal Conductivity: 0.05 W/mk (EN 12667)

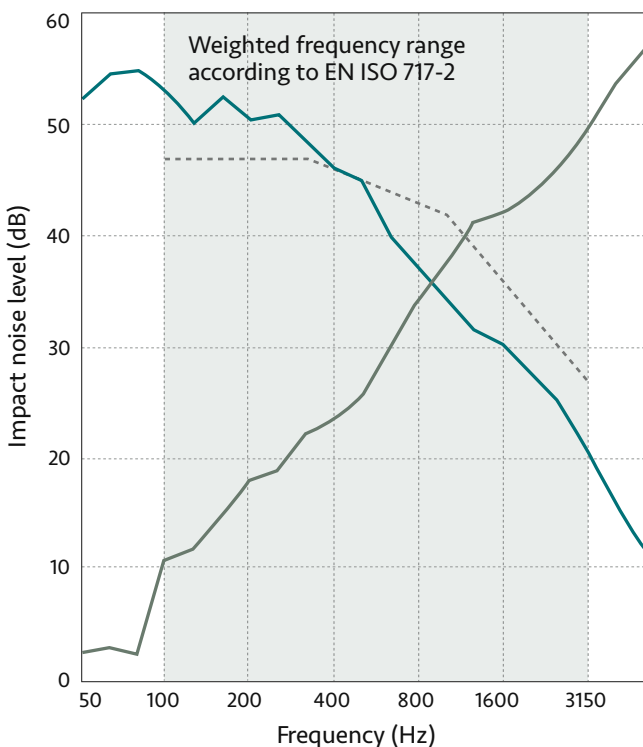
National Technical Approval No: Z-23.21-1940



Advantages and Benefits

- Highly effective over the entire load range
- Low installed height – particularly suitable for refurbishments
- Easy handling
- Quick installation – does not need to be bonded to the sub-floor
- Outstanding performance over lifetime of the building

Impact noise improvement level according to EN ISO 10140-3



f in Hz	L _n in dB	ΔL in dB
50	52.5	2.3
63	54.6	2.9
80	54.9	2.3
100	53.2	11.0
125	50.3	11.7
160	52.8	14.8
200	50.4	18.1
250	51.0	18.9
315	48.4	22.2
400	46.0	23.5
500	45.0	25.8
630	40.1	30.4
800	37.3	34.6
1000	34.3	37.7
1250	31.5	41.2
1600	30.2	42.2
2000	27.6	43.8
2500	25.2	46.2
3150	20.9	49.6
4000	16.1	53.8
5000	12.0	56.7

Test assembly:
80mm cement screed
(179kg/m²)
16mm AFM 33
(s' 13 MN/m³)
160mm reinforced concrete
ceiling (400kg/m²)

— Measurement curve
- - - Reference curve
— Improvement of impact noise





TVS Acoustic Floating Floors

In general terms, a floating floor refers to a floor that is not nailed or glued to the subfloor. However, when we are discussing an acoustic floated floor, we are considering a floated element of a given mass, with a clear air gap below, supported on resilient mounts above the subfloor. TVS Floating Floor range covers a large variety of high performance, acoustic floating floors, suitable for a whole range of different applications.

Acoustic floating floors are used within structures to either protect sensitive rooms and areas from external noise sources, or to contain the noise and vibration generated within a space from breaking out and causing problems for other areas of the building.



The performance of the floated floor is dictated by the mass of the floated element, the size of the air gap and the natural frequency of the resilient mounts, whilst additional factors such as the addition of mineral wool in the void can improve the low frequency performance.

In simple terms, to increase the performance of a floated floor you can:

- Increase the floated mass
- Increase the depth of the void
- Reduce the natural frequency of the resilient mounts

Isolator Type

The technical team at TVS are more than happy to assist in the specification of a floated floor. The selection of the isolators and their spacing is designed to ensure that the required natural frequency performance is met under any potential load case, whilst ensuring that any peak load cases can be accommodated comfortably, without causing any damage to the floor or the isolators. Additional requirements such as the isolators' damping characteristics, the shock isolation performance and the potential additional deflection under live loads are all factors that need to be considered carefully for certain applications.

Typical locations where floating floors are often required include:

- Cinema auditoria
- Recording Studios
- Bowling Alleys
- Theatres and Concert Halls
- Plant Rooms
- Gyms and Sports Halls
- Music Rehearsal Areas and Classrooms
- Multi-Use Rooftop Spaces
- Residential Dwellings
- Audiology Suites
- Test Cells
- Helipads
- Night Clubs
- Hotels
- Apartments
- Dance Studios
- Offices
- TV Studios
- Machine Foundations
- Anechoic Chambers
- Hospitals

TVS RESi FF System



Product Description

TVS RESi Floating Floor Systems are designed to create a floating floor or slab to dramatically reduce impact and airborne sound transmission within building structures. The system can be used to support lightweight floors and screeds through to heavy raft foundations, with typical air gaps between floors ranging from 50mm to 150mm.

TVS RESi Floating Floor Systems will be designed by TVS engineers to meet key project specifications for natural frequency, load/deflection, air gap and ultimately acoustic performance.

The TVS RESi Floating Floor (FF) System utilises isolators produced from the high-performance range of Sylomer materials to support floated floor above. The low frequencies that these isolators can achieve dramatically reduce impact and airborne sound transmission within building structures. The system can be used to support lightweight floors and screeds, through to heavy raft foundations, with typical air gaps between floors ranging from 25mm to 200mm (although larger voids are easily achieved).

Through varying the Sylomer grade and isolator spacing, the RESi FF System can provide natural frequencies down to 5Hz,



Advantages and Benefits

- Outstanding performance over lifetime of the building
- Natural frequencies down to 5Hz
- Floor thickness from 50mm to 500mm
- Minimal deflection under high loads
- Excellent shock and impact resistance
- Minimal creep
- Air gaps from 25mm to 150mm plus
- Suitable for concrete and timber floating floors
- Can achieve excellent impact and airborne performance
- P.I. backed design service
- Isolators can be custom made to meet project objectives

under a whole host of loading conditions. **TVS RESi FF Systems** will be designed by TVS engineers to meet key project specifications for natural frequency, load, deflection, airgap and ultimately acoustic performance.

The Sylomer material is a high-performance polyurethane that offers a number of key advantages over other isolators:

- Low static to dynamic stiffness ratio (1.2-1.3 as opposed to typically 1.5 to 2.5 for rubber).
- Long service life (50+ years).
- Minimal creep.
- Excellent resistance to shock loads making these isolators ideal for gym environments.
- Ozone, temperature and chemically resistant to oils, grease, fuel etc.
- Volume compressible (compact rubber isolators often require holes and profiles to allow the deflection, which can be filled by water, sand or sediment and affect the performance).

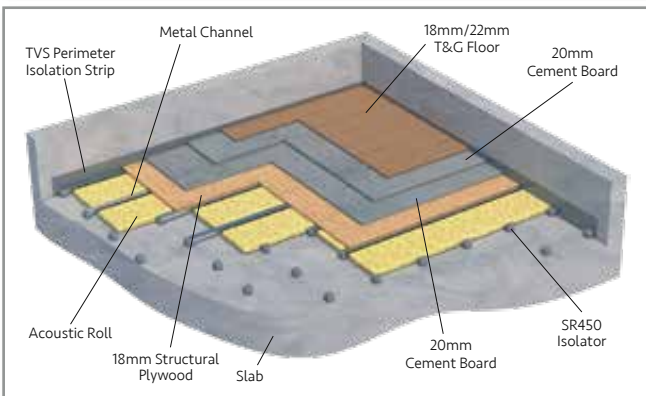
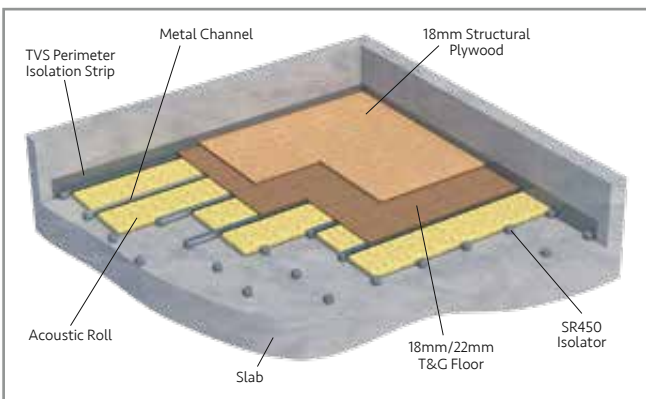
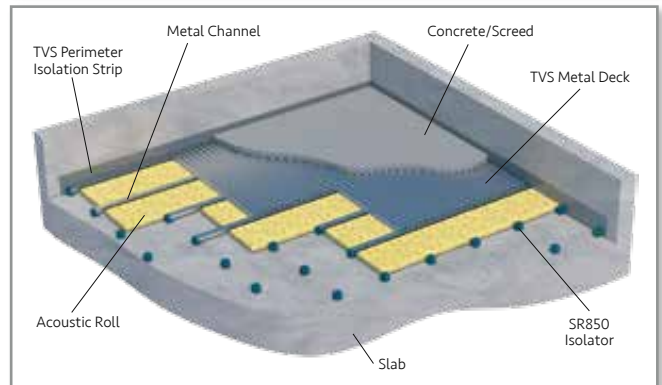
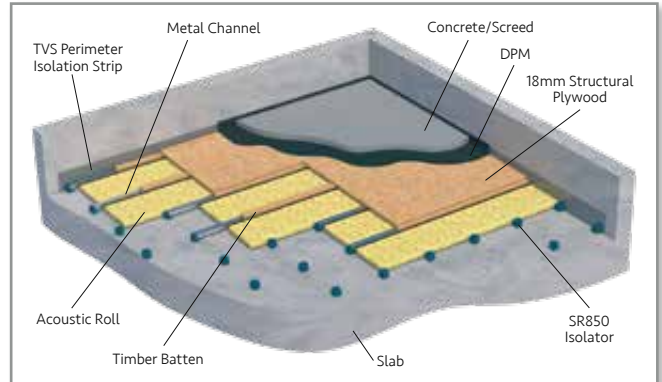


TVS RESi FF System

TVS RESi Concrete Systems

Concrete floating floors are the most common type of floated build-up as the additional mass that this system provides offers the greatest acoustic benefit. These systems also offer the greatest strength, whilst the large dead load that the floated slab provides ensures minimal movement under the addition of any live loading.

The **TVS RESi FF Systems** allows for a 'pour in place' construction, where the acoustic formwork is built and then the concrete is poured at the final design height with no requirement for any additional levelling or 'jacking up'. This is very beneficial in terms of a projects programme and as such is often utilised in cinema auditoria where these floors are the last thing to be constructed before the shell is handed over to the fit-out contractors.



TVS RESi Dry Systems

It is not always possible to install concrete floating floors. The additional mass and point loading that a floated concrete slab can provide often makes it unsuitable, particularly within existing structures. Often there isn't the floor height available to allow the addition of a concrete floated floor.

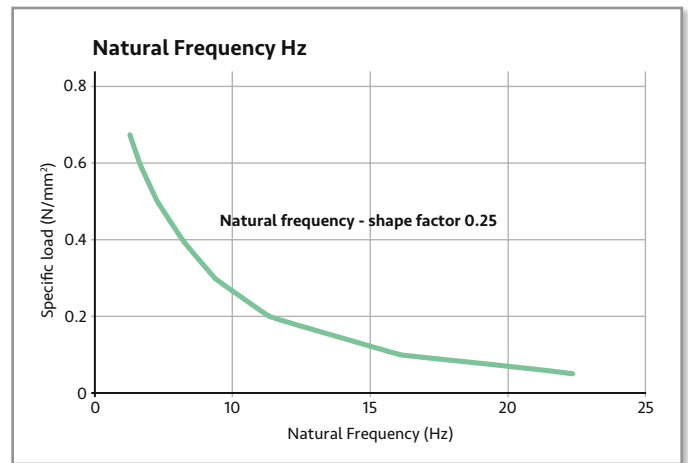
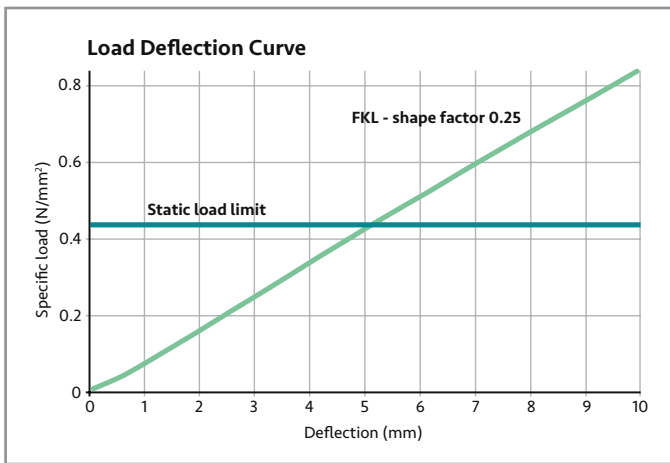
In these cases, layers of plywood, flooring grade chipboard and cement particle board can be combined to provide a stable floated floor. The more mass that can be added to the floating floor the better the performance will be, however the build-up will often be limited by the available space and load capacity of the structure. These systems are often installed within pre-existing buildings with minimal disruption to adjacent areas.



TVS RESi FF System

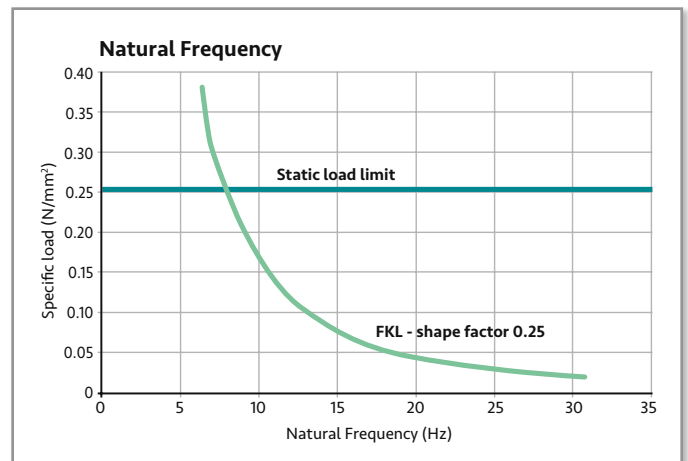
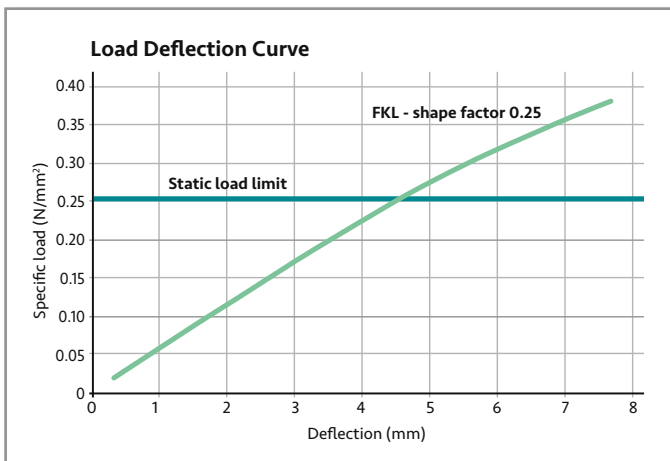
TVS RESi Concrete Systems

SR850 Performance graphs (based on 50mm x 50mm x 50mm Isolator)



TVS RESi Dry Systems

SR450 Performance graphs (based on 50mm x 50mm x 50mm Isolator)



Standard Isolator Dimensions

Elastomer: 50mm x 50mm x 50mm;
50mm x 50mm x 37.5mm;
50mm x 50mm x 25mm

Types: SR850 - Turquoise
SR450 - Grey

Material: 100% Polyurethane

Product Properties		Test Methods	Comment
Flammability	class E	EN ISO 11925-2	normal flammable EN 13501-1
Temperature range	-30°C to 70°C		higher temperatures possible for short periods

TVS Spring Jack Up Floor

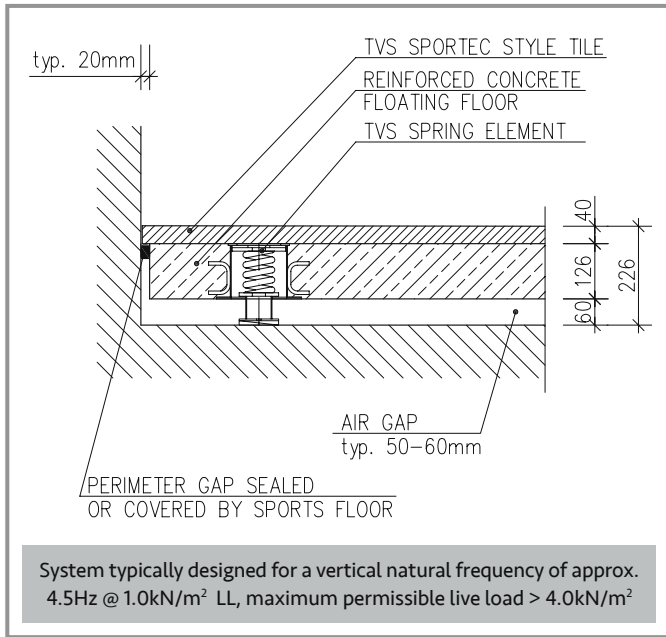


Product Description

Floating floor and room-within-a-room structures represent state-of-the-art technology to control vibration and structure-borne noise within buildings. This technology is used to separate TV, broadcasting or recording studios, recital & rehearsal rooms as well as theatres, discos, fitness studios and HVAC areas dynamically and acoustically from the surrounding environment.



'jack-up' type spring element



At system natural frequencies, ranging from 7Hz down to 2.5Hz, TVS Acoustics steel spring elements provide the most efficient solutions in protecting highly sensitive areas from mechanical vibration and structure-borne noise.

Mitigation of structure-borne noise and vibration starts at frequencies as low as 4Hz thus giving the TVS Acoustics system an advantage over elastic pad material.

Basic Spring Element Systems

TVS Acoustics offers a variety of spring element systems for floating floors. In addition to a large number of steel springs of different elasticity and load capacity there are several element systems available designed for a wide range of applications:

1. Embedded 'jack up' Spring Elements

Embedded in the concrete slab, jack-up type spring elements are a preferred choice in terms of simplified installation, high flexibility/re-adjustability and low system height.

2. Supporting Spring Elements

Supporting type spring elements arranged below the floating slab are designed to carry high and concentrated loads and can easily be adjusted to the actual loads if required post installation.

All spring elements can be provided with additional damping thus further improving the system's damping and attenuation performance.

"TVS Acoustics steel spring elements provide the most efficient solutions in protecting highly sensitive areas from mechanical vibration and structure-borne noise."



TVS Spring Jack Up Floor

Supporting Spring Units

Supporting spring elements are simply arranged between the isolated and the non-isolated structure.

For supporting spring elements, too, a broad range of different types of springs are available to provide system natural frequencies as low as 2.5 to 7Hz, resulting in excellent vibration and structure-borne noise mitigation performance.

Embedded 'jack-up' Spring Elements

This floating floor spring element system* offers the following design features:

- A range of different types of springs are available to provide system natural frequencies as low as 2.5Hz up to 7Hz.
- One of the major benefits of this TVS Acoustics spring system is its accessibility from above, which allows for subsequent levelling of the floating slab, as well as spring replacement with springs of differing capacities.
- In order to achieve uniform spring deflections, elements of different type and load capacity can be combined in a system layout to allow for different slab loadings.
- Slab construction and the installation of the springs are very simple. Apart from a bond-breaking plastic layer, there is usually no need for any bottom formwork. The slab is lifted directly from the substructure after the concrete has achieved its design strength.
- The jack-up and adjustment facilities are an integral part of every element.
- The elements can be equipped with a damping system in order to stabilize the floating slab and to further improve attenuation capacity at higher frequency levels.

*European Patent



Constructing a floating floor for Primal Gym, Leeds



Primal Gym, Leeds



Case Study

Cineworld South Ruislip

Client: Cineworld

Main Contractor: Simons Construction

Acoustic Consultant: Sharps Redmore

Project Information

TVS supplied and installed the acoustic floating floor within each auditorium of the new Cineworld Cinema in South Ruislip. Located on the site of the former Arla Dairies factory, the Citigrove development also included a number of restaurants, shops and apartments.

In order to achieve Cineworld's specification of NR30 within each of the 11 auditoria, it was essential to install a floated concrete floor with a minimum air gap of 50mm, a minimum floated thickness of 100mm, and a maximum natural frequency of 14Hz. TVS RESi Floating Floor System, incorporating Sylomer SR850 isolators with a natural frequency of 8Hz comfortably met this specification.

We were able to offer the full design, supply and installation of the concrete floating floors including the flexible mastic finish around the perimeter of the floated slab.

Product

TVS RESi Floating Floor System

TVS Acoustic Mastic to all auditoriums

Completed: 2017



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Case Study

Anytime Fitness, Sheffield

Project/Objective

Protection of offices from noise and vibration due to dropping free weights.

Structure

Gerb Floating Floor
Spring-Supported Concrete Floating Floor ~23m²

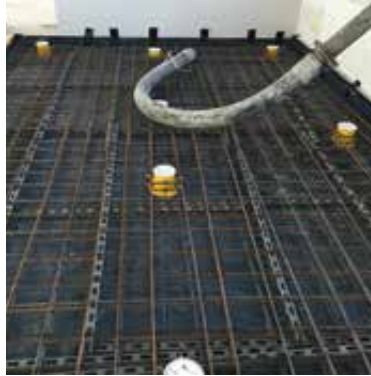
Floor Isolation

Gerb Spring Elements Type PF with Damping
Vertical System – Natural Frequency: ca. 4.0Hz

Special Features

- High Performance Noise and Vibration Isolation
- Low Construction Height
- Adjustability
- No Maintenance

Completed: 2015





TVS ACOUSTICS

NOISE & VIBRATION CONTROL

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