

IMPACT ISOLATION FOR FLOOR

Impact Isolation / Soundproofing a floor requires addressing the issue of impact noise. Impact noise is a structure borne sound created when two objects collide. This impact energy creates vibrations that resonate through the materials in the structure. Most people think of this as "neighbor noise" from someone walking on the floor above or other activities.

Utilize an acoustic floor underlayment to short circuit the impact noise. Place it underneath the finished flooring and cover the whole floor. This will prevent structural sound from passing through the completed assembly.

Application area Impact noise insulation

Underneath screed flooring

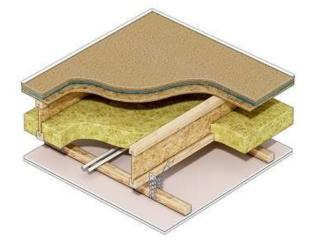
- Supermarkets
- Hotels
- Fitness studios
- Hospitals and old people's homes
- Production halls and warehouses

Material	100 % polyurethane
Color	Olive-green

According to ISO 717-2 Improvement of Impact Noise 33 dB

Advantages and Benefits

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





PRO ACOUSTIC SOLUTIONS

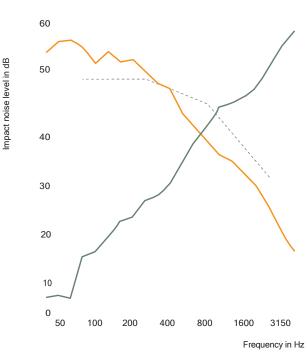
TECHNICAL PROPERTIES

Product Propertie	S	Test Methods	Remarks
Load range	2,500 kg/m2		
Thickness	16 mm		
Dyn. stiffness s'	≤ 13 MN/m3	EN 29052-1	
Compressibility c (dL– dB)	≤ 2 mm	EN 12431	
Flammability	class E	EN ISO 11925-2	Normal Lammable, EN 13501-1
Thermal conductivity	0.05 W/mK	EN 12667	
Temperature range	-30 °C to 70 °C		higher temperatures possible for short periods
Weightet impact noise improvement ∆Ln,w	33 dB	EN ISO 10140-3	EN ISO 717-2
European technical assessment no:	ETA-17/0243		

There is high density living in the inner city which results in many people living in multi-storey apartment buildings. Noise from activity in adjacent apartments can adversely affect the amenity of residents. To effectively reduce internal noise transfer from adjacent apartments and maintain the amenity of the resident it is important for the floors to be designed properly.

A well designed floor-ceiling system is required to insulate against both impact and airborne sound. Impact noise is generated by activities such as walking. The floor surface finish and overall method of construction will have an effect on impact noise transfer to apartments located below.

Impact noise improvement level according to EN ISO 10140-3



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
1,000	34.3	37.7
1,250	31.5	41.2
1,600	30.2	42.2
2,000	27.6	43.8
2,500	25.2	46.2
3,150	20.9	49.6
4,000	16.1	53.8
5,000	12.0	56.7

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

Measurement curve

----- Reference curve

Improvement of impact noise



Standard Delivery Dimensions, Ex Warehouse

Thickness:16/9 mm corrugated profilePanels:1500 × 750 mmPallet:90 items (101.25 m2)



European Technical Assessment

An European Technical Assessment (ETA) is based on independent, technical tests. The performance is evaluated and the essential characteristics are merged acc. to Construction Products Regulation (EU) No. 305/201 and are a reliable evidence of the fitness for purpose of a construction product.

The majority of noise complaints by residents in multi-dwelling residences are caused by hard surface flooring. A common solution to curb the impact of hard floors is to install a resilient layer between the subfloor structure and the hard surface flooring. This study attempts to investigate the influence of various flooring products and resilient underlays on the impact sound isolation of several commonly used floor systems. The impact sound insulation of numerous combinations of flooring products and resilient underlays were tested on a concrete slab with a plasterboard ceiling. Four flooring products were tested including an engineered tile system, engineered timber, timber laminate and vinyl flooring products. The underlay products consisted of three rubber underlays with varying thicknesses, one underlay consisting of polyurethane foam granulates and cork and an underlay consisting of polyurethane-bound elastomers. Comparison of results between soft floor coverings indicate that the profile of the resilient underlay can have significant improvements in impact sound insulation, more so than the weight of the flooring or the thickness of the resilient material.

All information and data is based on our current level of knowledge. It can be used in calculations and for reference purposes. It is subject to typical manufacturing tolerances and does not represent warranted properties.