Cell–Floor® SYSTEM

HIGH PERFORMANCE

IMPACT PRO

Heavy Duty – Floor's Impact Noise Eliminator

Floor Underlayment Isolation for Screed and Concrete Floors

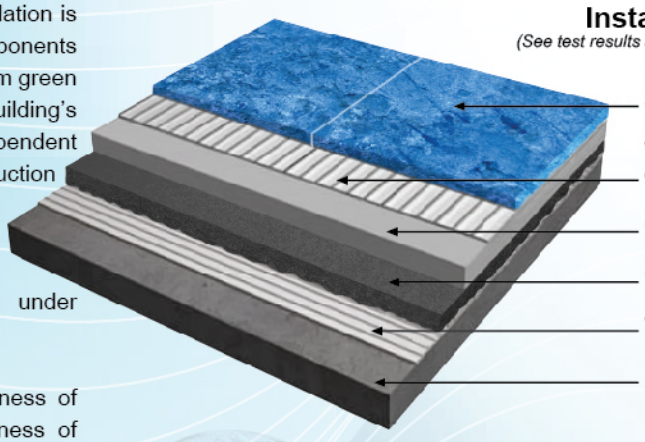
Our high performance Impact Pro floor isolation is designed for screed floor treatment. Components of this product are made almost entirely from green materials. It has been installed in various building's environments and tested at various independent laboratories, which prove its significant reduction of floor impact noise.

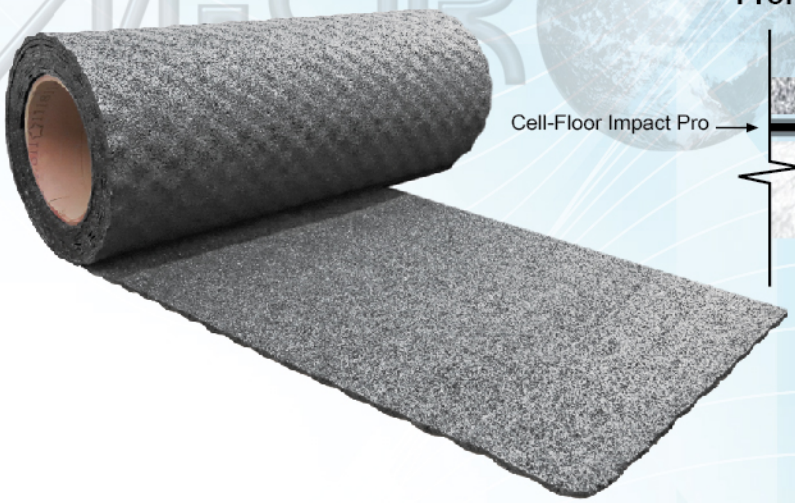
Impact Pro is crush resistant, durable and offer significant impact noise reduction under screed, concrete, tiles or plywood floors.

Impact Pro is available in standard thickness of 8mm, with option special order for thickness of 6mm, 17mm and 25mm. this range will achieve impact noise reduction of $\triangle L_w$ of up to 40 dB of floor layer system.

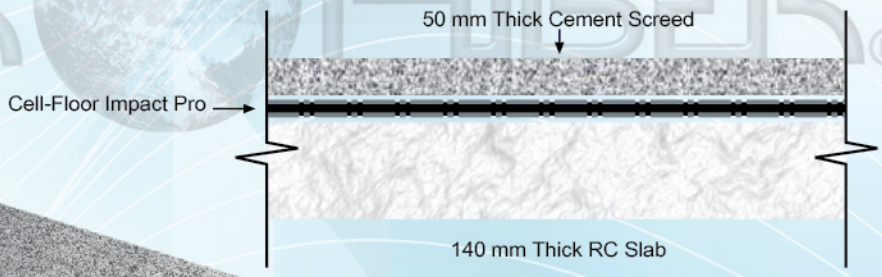
Installation Overview

(See test results and measurement on Page-2 overleaf)

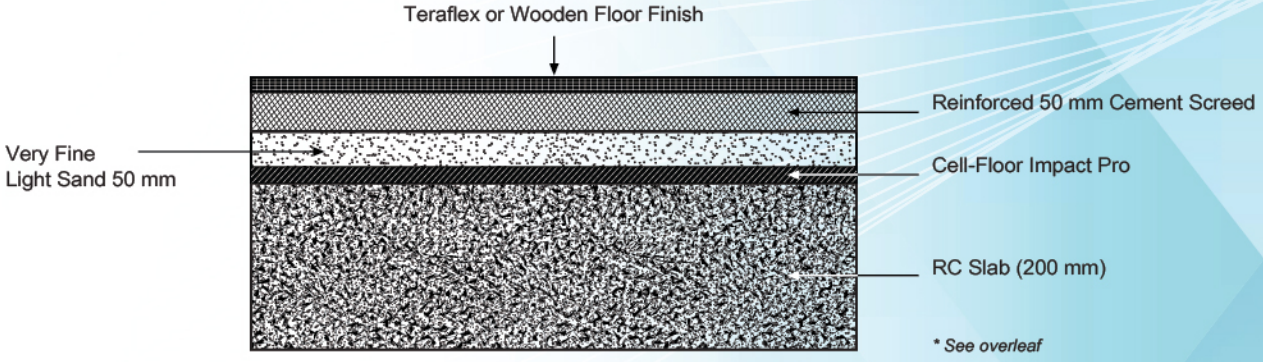




Profile of Impact Isolation Floor System (IIC 53)



Profile of Impact Isolation of Critical Floor System for Sports Facility (on Second Floor*)



** See overleaf*

Cell–Floor® SYSTEM

HIGH PERFORMANCE

IMPACT PRO

Heavy Duty – Floor's Impact Noise Eliminator

Laboratory Test Results

Normalized impact sound pressure level ($L_{n,0}$) and shifted reference values for weighted normalized impact sound pressure level ($L_{n,0,w}$) of the standard concrete slab floor without floor covering in the receiving room

1/3 Octave Band Frequency (Hz)	$L_{n,0}$ (dB)	$L_{n,0,w}$ = 77 (dB)	Unfavourable Deviation
100	63.3	79	0.0
125	61.3	79	0.0
160	64.9	79	0.0
200	68.1	79	0.0
250	65.1	79	0.0
315	67.4	79	0.0
400	66.4	78	0.0
500	67.3	77	0.0
630	66.5	76	0.0
800	68.2	75	0.0
1000	69.6	74	0.0
1250	70.3	71	0.0
1600	70.1	68	2.1
2000	70.6	65	5.6
2500	71.2	62	9.2
3150	70.8	59	11.8
4000	69.3	56	13.3
5000	67.1	53	14.1
Total Unfavourable Deviation (100Hz - 3150Hz):			**28.9**

Note:
- The values in Table were plotted as shown in Figure 1.
- The standard concrete slab floor without floor covering in the receiving room achieved a weighted normalized impact sound pressure level, $L_{n,0,w}$ = 77dB.
- The **IIC** value for the standard concrete slab floor without floor covering is **33**.

Normalized impact sound pressure level (L_n) and shifted reference values for weighted normalized impact sound pressure level ($L_{n,w}$) of the standard concrete slab floor with floor covering in the receiving room

1/3 Octave Band Frequency (Hz)	L_n (dB)	$L_{n,w}$ = 51 (dB)	Unfavourable Deviation
100	57.7	53	4.7
125	59.6	53	6.6
160	62.5	53	9.5
200	60.7	53	7.7
250	55.6	53	2.6
315	50.2	53	0.0
400	44.5	52	0.0
500	39.0	51	0.0
630	30.5	50	0.0
800	25.5	49	0.0
1000	20.8	48	0.0
1250	17.3	45	0.0
1600	14.4	42	0.0
2000	13.3	39	0.0
2500	14.5	36	0.0
3150	10.9	33	0.0
4000	13.7	30	0.0
5000	14.7	27	0.0
Total Unfavourable Deviation (100Hz - 3150Hz):			**31.1**

Note:
- The values in Table were plotted as shown in Figure 2.
- The standard concrete slab floor with floor covering in the receiving room achieved a weighted normalized impact sound pressure level, $L_{n,w}$ = 51dB.
- The **IIC** value for the standard concrete slab floor with floor covering is **59**.

Reduction of impact sound pressure level ($\triangle L$) and weighted reduction of impact sound pressure level ($\triangle L_w$) of the floor covering sample in the receiving room

1/3 Octave Band Frequency (Hz)	$\triangle L$ (dB)	$L_{n,r}$ (dB)	$L_{n,r,w}$ = 55 (dB)	Unfavourable Deviation
100	5.5	61.5	62	4.5
125	1.7	65.8	62	8.8
160	2.4	65.6	62	8.6
200	7.4	61.1	62	4.1
250	9.5	59.5	62	2.5
315	17.2	52.3	62	0.0
400	21.9	48.1	61	0.0
500	28.3	42.2	60	0.0
630	36.0	35.0	59	0.0
800	42.6	28.4	58	0.0
1000	48.8	23.2	57	0.0
1250	53.0	19.0	54	0.0
1600	55.8	16.2	51	0.0
2000	57.3	14.7	48	0.0
2500	56.7	15.3	45	0.0
3150	60.0	12.0	42	0.0
Total Unfavourable Deviation (100Hz - 3150Hz):				**28.4**

Note:
- The values in Table were plotted as shown in Figure 3.
- The $L_{n,r}$ values were calculated using the normalized impact sound pressure level of the reference floor with the floor covering under test.
- The $L_{n,r,w}$ values were calculated using the weighted normalized impact sound pressure level of the reference floor with the floor covering under test.
- The normalized impact sound pressure level of the reference floor, $L_{n,r,0,w}$ = 78dB, in accordance with ISO 717-2 : 1996(E) - Clause 4.3.1.
- The calculated weighted reduction of impact sound pressure level, $\triangle L_w = L_{n,r,0,w}$ = 78dB - 55dB = 23dB.
- The spectrum adaptation term for the impact sound pressure level of flat response and reference floor with floor covering is $C_{I,\triangle}$ = -12dB and $C_{I,r}$ = -1dB respectively.
- Visible surface indentations caused by the tapping machine were observed on the cement screed after the test.
- The wieghted reduction of impact sound pressure level, $\triangle L_w$, is **23dB**.

Figure 1 Impact sound insulation performance of the standard concrete slab floor without floor covering

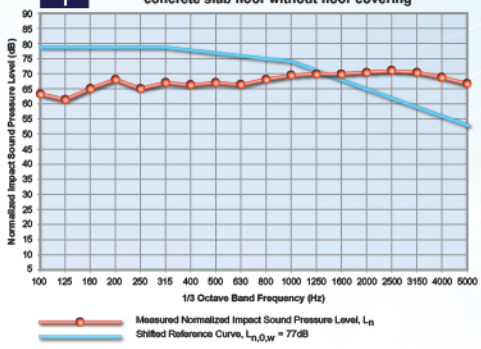


Figure 2 Impact sound insulation performance of the standard concrete slab floor with floor covering

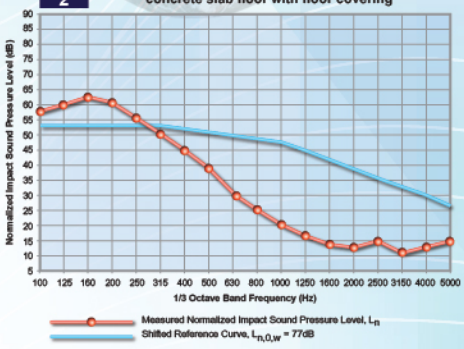
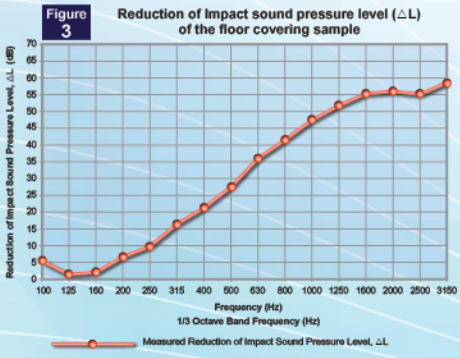


Figure 3 Reduction of Impact sound pressure level ($\triangle L$) of the floor covering sample



Background Noise Level in the Receiving Room

1/3 Octave Band Frequency (Hz)	Background Noise Level (dB)
50	23.10
63	28.30
80	29.60
100	39.40
125	29.00
160	26.80
200	24.90
250	24.40
315	23.70
400	19.40
500	19.80
630	21.40
800	19.30
1000	15.10
1250	10.60
1600	8.10
2000	6.30
2500	5.40
3150	5.30
4000	5.70
5000	5.80
Overall Sound Pressure Level (dB)	**41.2**

Physical Data

Standard Thickness of 8mm:

• The Weighted Impact Sound Reduction	$\triangle L_w$ = 28dB
• Calculation Value	$\triangle L_{w,R}$ = 18dB
• Average Value of Dynamic Stiffness According	s'≥47 MN/m³
• Thermal Conductivity	0.14 W/m°K
• Flammability	B 2
• Maximum Load Bearing	up to 4.250 kg/m²

High Performance Floor Isolation System

Does not Perish and is Resistant to Ageing and Deformation.

• Material	Reinforced Natural Rubber Fiber Web (APP Version)
• Delivered in	Rolls
• Dimension	4' (1,320mm) x 25' (8,250mm) x 8mm Thick
• Temperature Resistance	From-20° to +80°C
• Color	Anthracite
• Shipping Load	324 Rolls per Container

Proud Product of:

MICROFIBER TECHNOLOGY CORPORATION

Exclusively Distrbuted by:

PACIFIC AMERICAN COMPANY

A Division of MICROFIBER TECHNOLOGY CORPORATION, LLC - U.S.A.

www.MicrofiberAmerica.Com • **e-mail:**sales@pacific-usa.com

Contact Our Local Distributor/Applicator: