

TFI Report 440929-06

Reduction of transmitted impact noise by floor coverings

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Product underlay
Isocell

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This report includes 3 pages and 1 annex(es)

Dr. Ernst Schröder

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1 Transaction

Test order	Impact sound reduction according to EN ISO 10140-3:2010, EN ISO 717-2:2006
Order date	09.04.2014
Your reference	Marco Evers
Product designation	Isocell
TFI sample number	14-05-0261

2 Product Specification / Construction

Construction (from top to bottom)	TFI sample number	Total thickness	Total mass per unit area
QuickStep Eligna (floating laminate)	14-01-0190	8,0 mm	--
Isocell (underlay)	14-05-0261	2,8 mm*	~ 147 g/m ²

*customer information

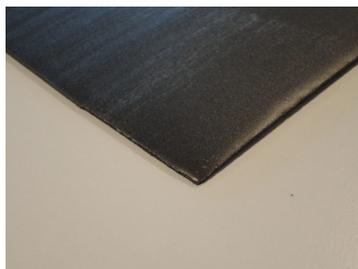
Floating laminate

Product designation	QuickStep Eligna
TFI sample number	14-05-0190
Structure	flat
Pattern	multicoloured, patterned
Colour of the use surface	brown, light brown, dark brown

Underlay

Product designation	Isocell
TFI sample number	14-05-0261
Type of underlay	foam

Product image
(front/back side)



3 Results

Impact sound reduction $\Delta L_w = 21$ dB
 $\Delta L_{lin} = 10$ dB

4 Annexes

Impact sound reduction TS 440929-06

The annexes marked ^a are based on tests accredited in accordance with EN ISO/IEC 17025.

Annex TS - Impact Sound Insulation

1 Transaction

Product designation	Isocell
TFI sample number	14-05-0261
Testing period	26.05.2014

2 Test Method / Requirements

EN ISO 10140-3:2010	Laboratory measurement of sound insulation of building elements – Part 3: Measurement of impact sound insulation
Deviations	sample size > 10m ² weighted with 20 kg/m ²
EN ISO 717-2:2013	Rating of sound insulation in buildings and of building elements – Part 2: Impact sound insulation
Deviations	None

3 Results

cf. p. 2

Impact sound insulation according ISO 10140-1

Measurement of impact sound insulation by a floor covering on a solid concrete floor

Product name Isocell

TFI sample number 14-05-0261

Construction 8mm QuickStep Eligna
(from top to bottom) 2,8mm Isocell

Category II according to ISO 10140

Installation loose laid

Setting time -

Installed by laboratory

Reference floor solid concrete floor

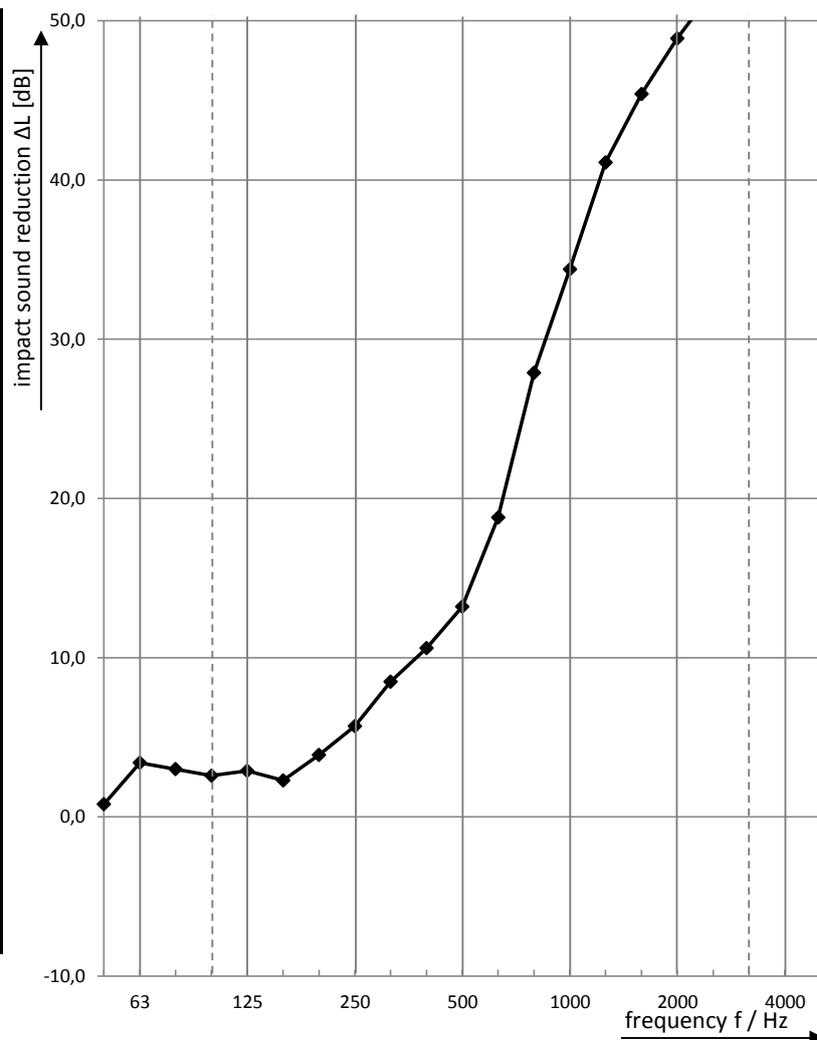
Note sample size > 10m²

weighted with 20 kg/m²

Testing period 26.05.2014

	Θ [°C]	r.h. [%]
in the source room	19,2	54
in the receiving room	19,4	52

Frequency f [Hz]	L _{n,0} third-octave [dB]	ΔL third-octave [dB]
50	56,5	0,8
63	62,7	3,4
80	57,4	3,0
100	57,2	2,6
125	67,5	2,9
160	62,6	2,3
200	64,1	3,9
250	67,1	5,7
315	65,3	8,5
400	64,7	10,6
500	65	13,2
630	65,3	18,8
800	66,4	27,9
1000	67,8	34,4
1250	67,7	41,1
1600	68,2	45,4
2000	68,8	48,9
2500	68,6	51,9
3150	67,9	53,4
4000	66,9	
5000	64,4	



*Airborne noise correction for the measured value

Evaluation according to ISO 717-2

$$\Delta L_w = 21 \text{ dB} \quad \Delta L_{jin} = 10 \text{ dB}$$

$$C_{l,\Delta} = -11 \text{ dB} \quad C_{l,r} = 0 \text{ dB} \quad C_{l,r,50-2500} = 2 \text{ dB}$$

The results are based on measurements, which were performed under laboratory conditions with artificial excitation (standard procedure).

