

# CANAM-BUILDINGS ACOUSTICAL GUIDE

ACOUSTIC RESEARCH REPORT ACOUSTITECH / CANAM



# **CANAM**

**BUILDINGS**



June 22nd, 2016

**AcoustiTECH**  
PERFORMANCE CREDIBILITY EXPERTISE

# CANAM-BUILDINGS

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## ACOUSTICAL GUIDE

ACOUSTIC RESEARCH REPORT ACOUSTITECH / CANAM

Final report

R&D Project  
Date: June 22nd, 2016

**AcoustiTECH**  
PERFORMANCE CREDIBILITY EXPERTISE



**CANAM**  
BUILDINGS

### SIGNATURE

PREPARED BY

A handwritten signature in black ink, appearing to read 'David Dompierre', written over a horizontal line.

David Dompierre  
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## INTRODUCTION

AcoustiTECH is a North American leader in acoustic solutions and has quickly become the reference standard in the industry. For over 15 years, AcoustiTECH has teamed up with architects, builders, general contractors, acoustic consultants and other stakeholders to help them achieve their vision by providing proven acoustical solutions and expertise. AcoustiTECH looks at the specific requirements of each individual project, evaluates the requirements, determines the needs and provides personalized solutions. AcoustiTECH's approach is unique, efficient and reliable.

We possess our own acoustic laboratory that we use for our research and development in order to recommend the best acoustic solutions by type of structure. Thousands of tests have been performed including 120 tests on steel structures.

Following these tests and a deep analysis on the subject, we can now offer many types of flooring assembly on Hambro D500 steel structure, and that is on 2 different types of ceiling (with or without Acoustivibe CDC suspensions from Resistosound). Furthermore, these solutions include also options for different floor covering types. More tests will be performed on the Hambro MD 2000 steel structure in a near future.

It's important to note that the quality of work can affect the performance. Indeed, construction standards and assemblies recommendation must be followed in order to reach the seeking performance.

## REFERENCE BY TERRITORY

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**CANAM**  
**BUILDINGS**

HAMBRO D500 STEEL STRUCTURE  
+  
RESISTOSOUND ACOUSTIVIBE



ASSEMBLIES AND  
ACOUSTIC TEST REPORTS

# BARE SLAB RESISTOSOUND ACOUSTIVIBE CDC

## AIIC 48



**Project : SAX - Raymond Poulin**  
**Test : Test 1 - Bare slab**

**Description :**

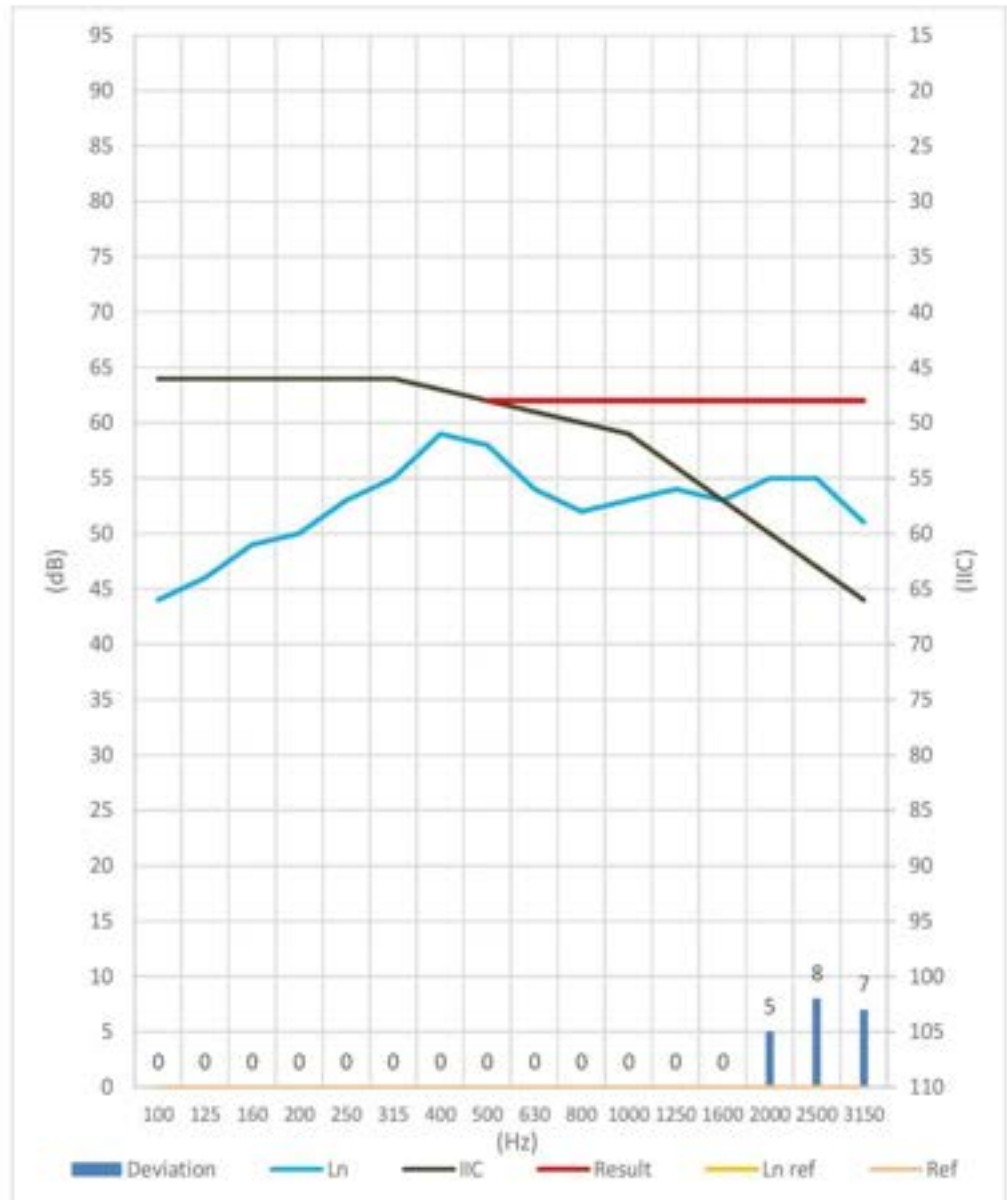
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIRC</b>	<b>48</b>
Defavorable deviations	20

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	44	46	49	50	53	55	59	58	54	52	53	54	53	55	55	51
IIC	64	64	64	64	64	64	63	62	61	60	59	56	53	50	47	44
Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8	7

Luxury vinyl tile/plank  
**RESISTOSOUND ACOUSTIVIBE CDC**

**AIIC 50**





**Project : SAX - Raymond Poulin**

**Test : Test 89 - LVT 32mm**

**Description :**

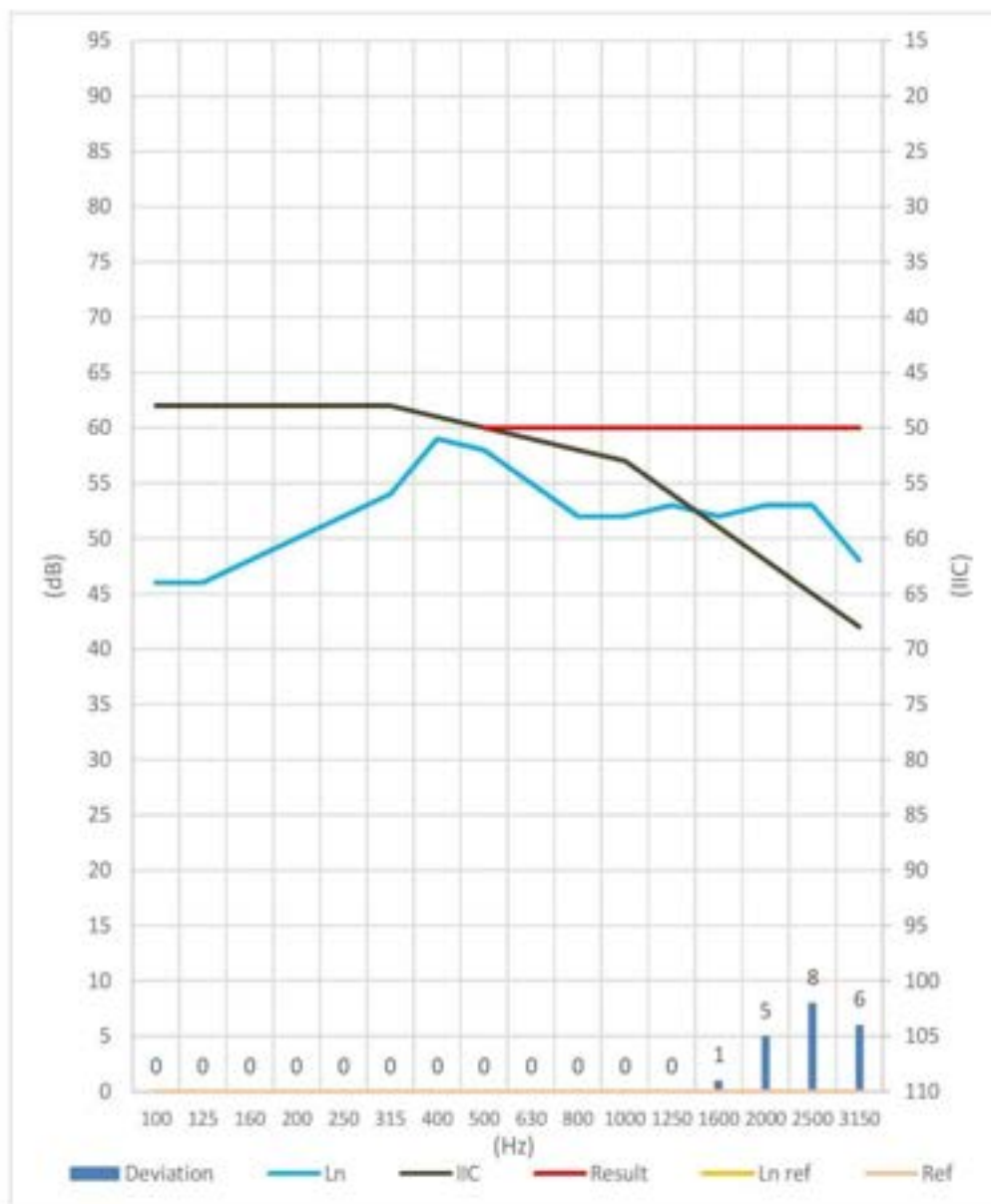
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIRC</b>	<b>50</b>
Defavorable deviations	20

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	46	46	48	50	52	54	59	58	55	52	52	53	52	53	53	48
IIC	62	62	62	62	62	62	61	60	59	58	57	54	51	48	45	42
Deviation	0	0	0	0	0	0	0	0	0	0	0	0	1	5	8	6

Luxury vinyl tile/plank  
AcoustiTECH LV  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 69



**Project : SAX - Raymond Poulin**

**Test : Test 42 - AcoustiTECH LV + AcoustiTECH LVT 32mm**

**Description :**

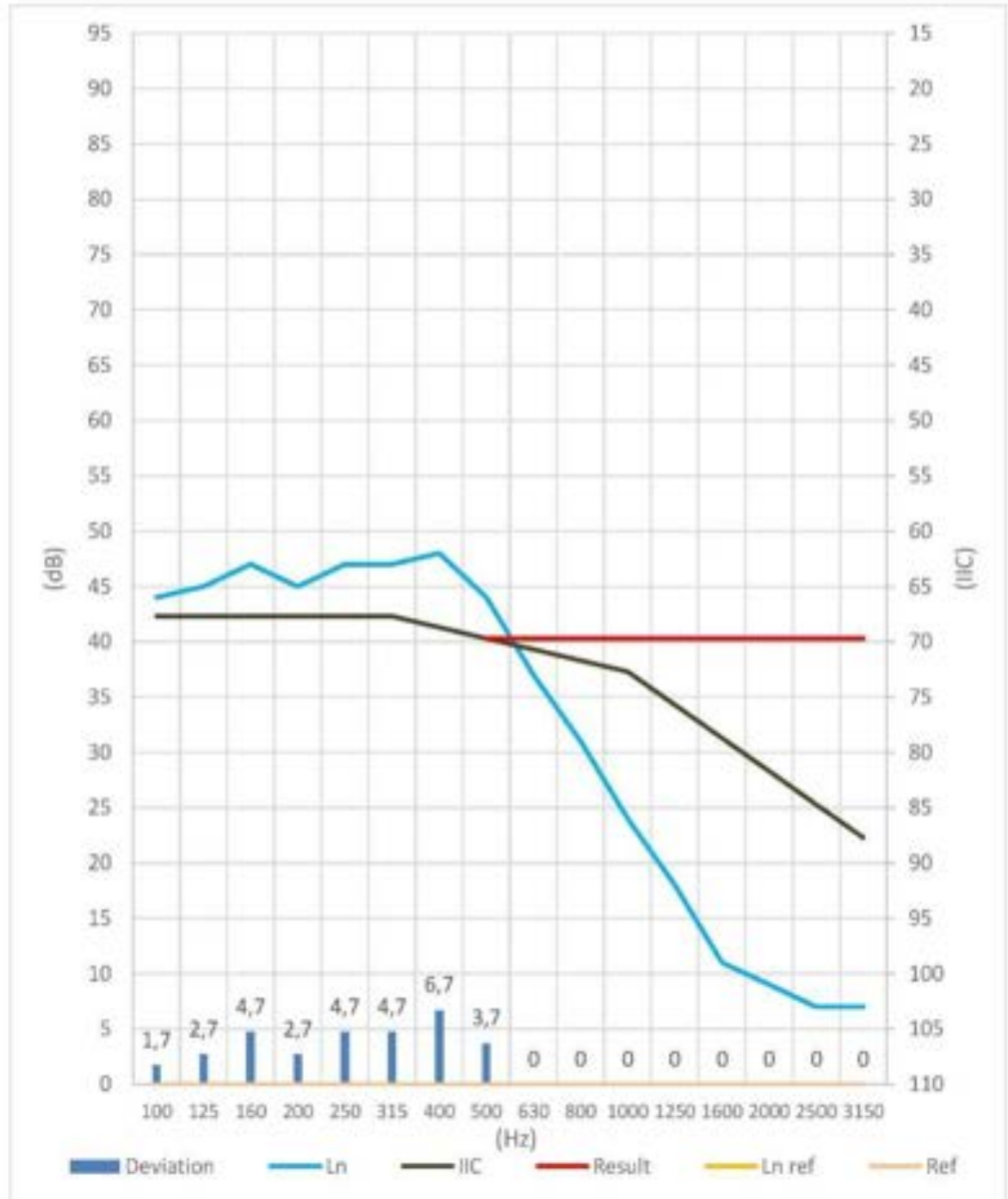
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIRC</b>	<b>69,7</b>
Defavorable deviations	31,6

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	44	45	47	45	47	47	48	44	37	31	24	18	11	9	7	7
IIC	42,3	42,3	42,3	42,3	42,3	42,3	41,3	40,3	39,3	38,3	37,3	34,3	31,3	28,3	25,3	22,3
Deviation	1,7	2,7	4,7	2,7	4,7	4,7	6,7	3,7	0	0	0	0	0	0	0	0

Floating floor  
AcoustiTECH VP  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 67



**Project : SAX - Raymond Poulin**

**Test : Test 9 - AcoustiTECH VP + Pine filleted core engineered #1**

**Description :**

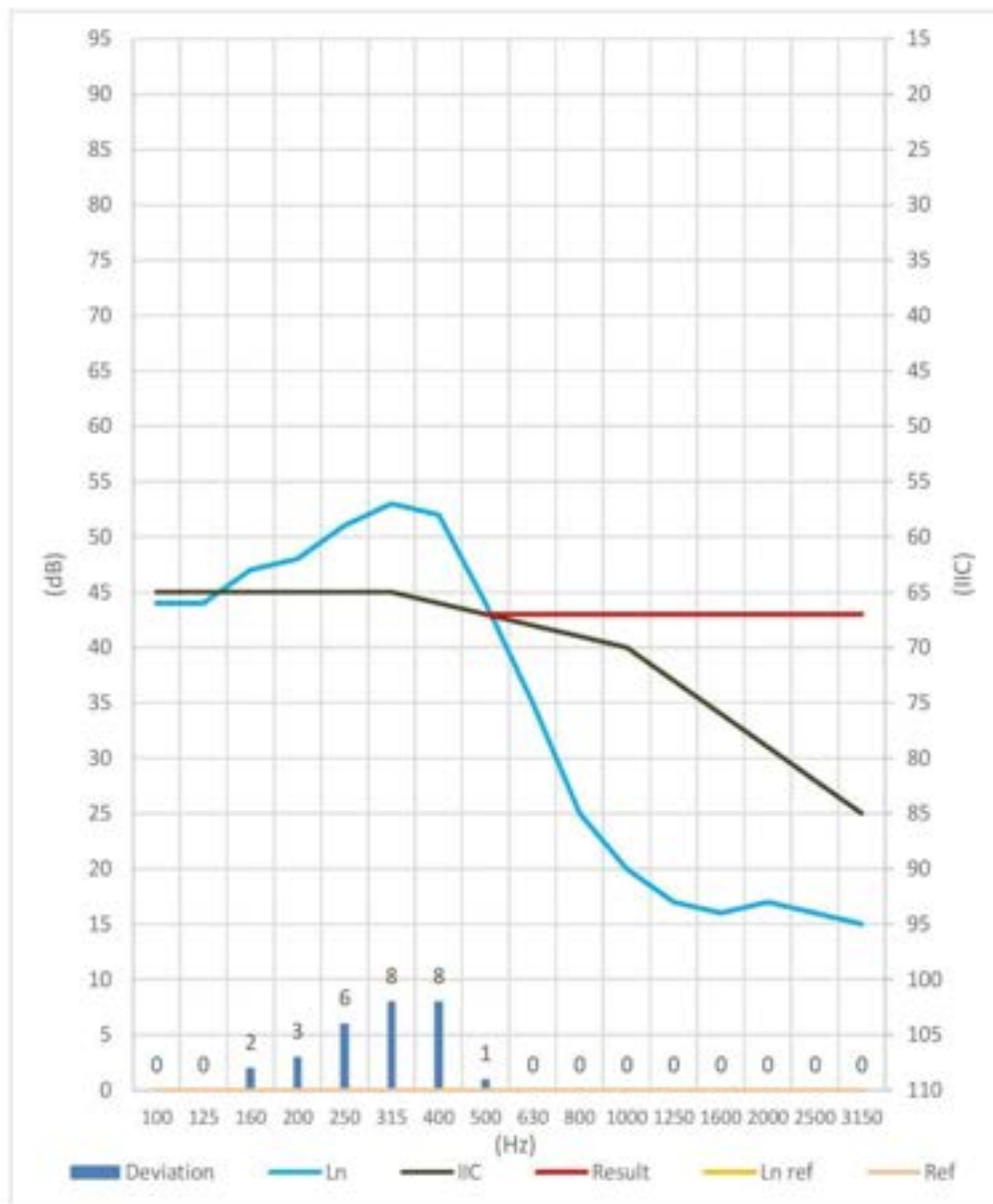
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIIC</b>	<b>67</b>
Defavorable deviations	28

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	44	44	47	48	51	53	52	44	35	25	20	17	16	17	16	15
IIC	45	45	45	45	45	45	44	43	42	41	40	37	34	31	28	25
Deviation	0	0	2	3	6	8	8	1	0	0	0	0	0	0	0	0

Floating floor  
RESISTOSOUND Insonofloor  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 67



**Project : SAX - Raymond Poulin**

**Test : Test 37 - Resistosound Insonofloor + Pine filleted core engineered #1**

**Description :**

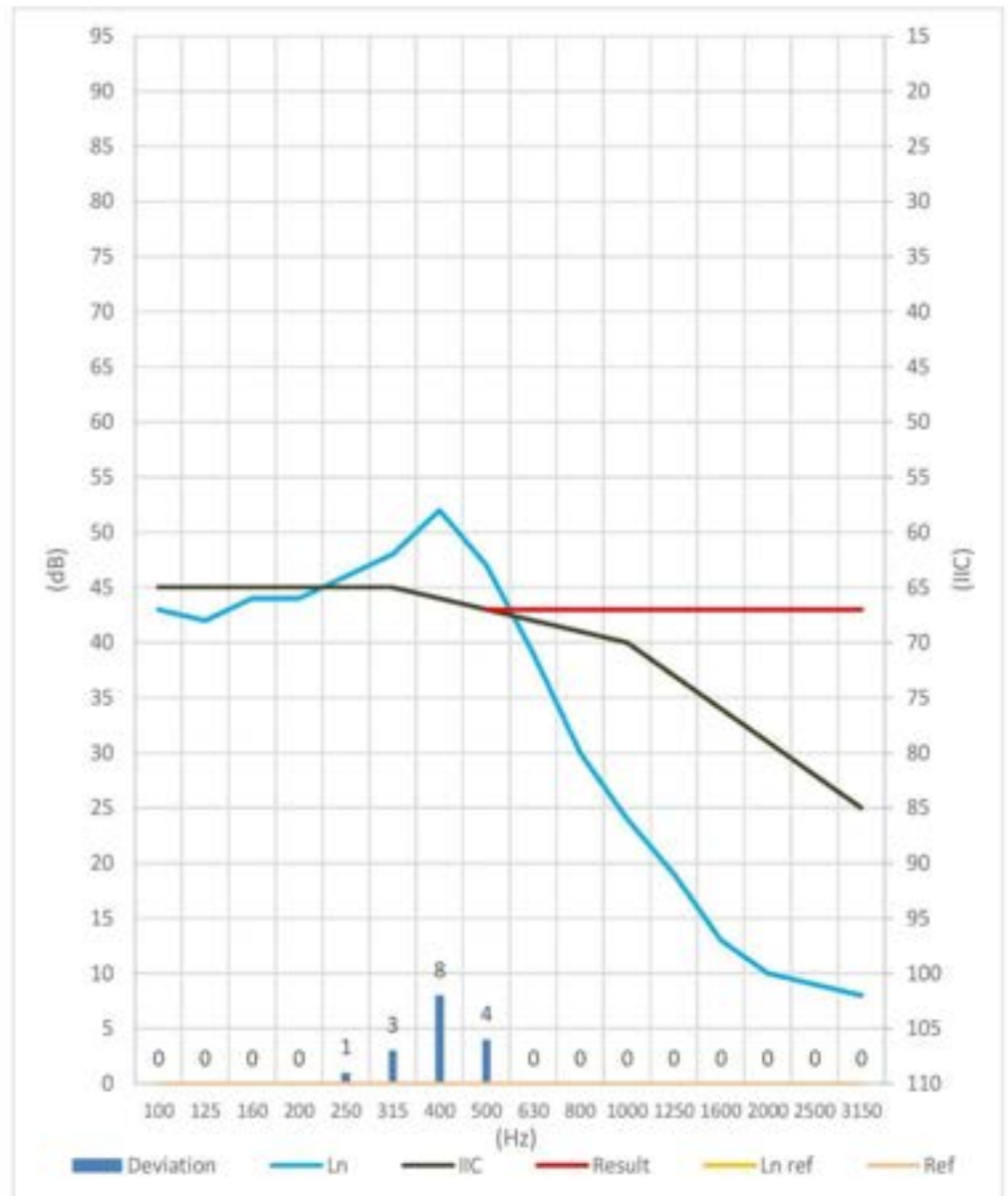
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIIC</b>	<b>67</b>
Defavorable deviations	16

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	43	42	44	44	46	48	52	47	39	30	24	19	13	10	9	8
IIC	45	45	45	45	45	45	44	43	42	41	40	37	34	31	28	25
Deviation	0	0	0	0	1	3	8	4	0	0	0	0	0	0	0	0

Engineered hardwood floor  
AcoustiTECH Lead 3.3  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 68





**Project : SAX - Raymond Poulin**

**Test : Test 13 - AcoustiTECH Lead 33 + Pine filleted core engineered #1**

**Description :**

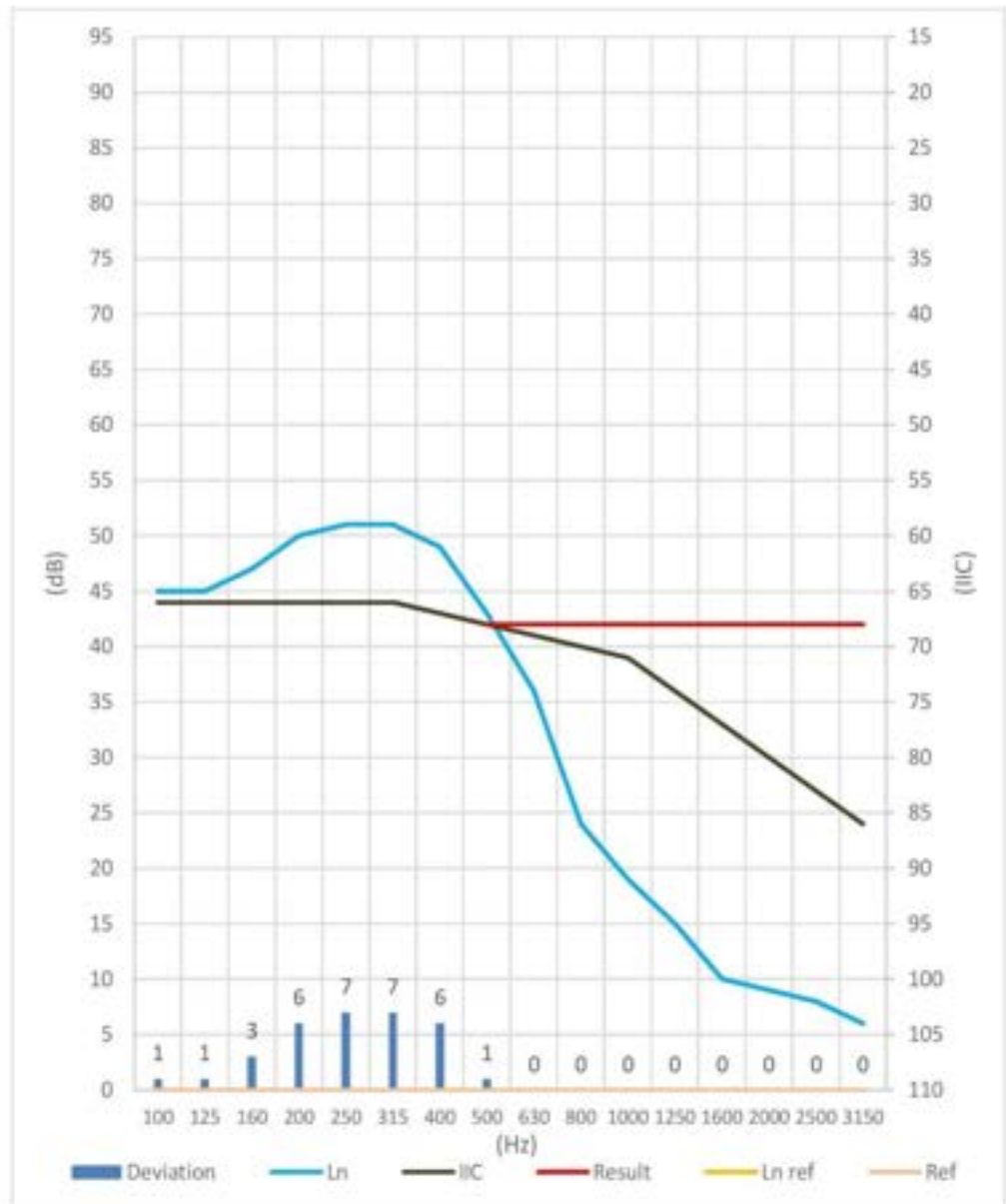
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIRC</b>	<b>68</b>
Defavorable deviations	32

**Assembling schema**

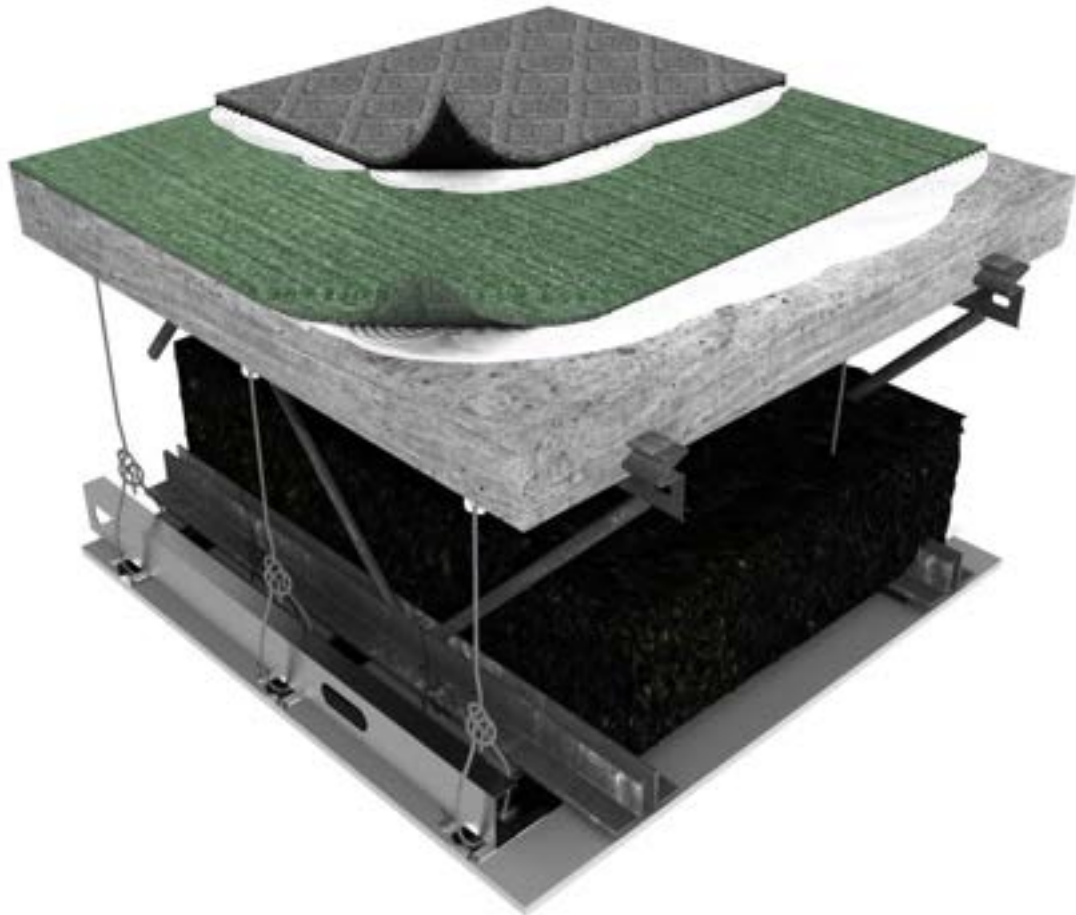
4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	45	45	47	50	51	51	49	43	36	24	19	15	10	9	8	6
IIC	44	44	44	44	44	44	43	42	41	40	39	36	33	30	27	24
Deviation	1	1	3	6	7	7	6	1	0	0	0	0	0	0	0	0

Carpet  
AcoustiTECH Lead 3.3  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 81



**Project : SAX - Raymond Poulin**

**Test : Test 16 - AcoustiTECH Lead 33 + Jute carpet**

**Description :**

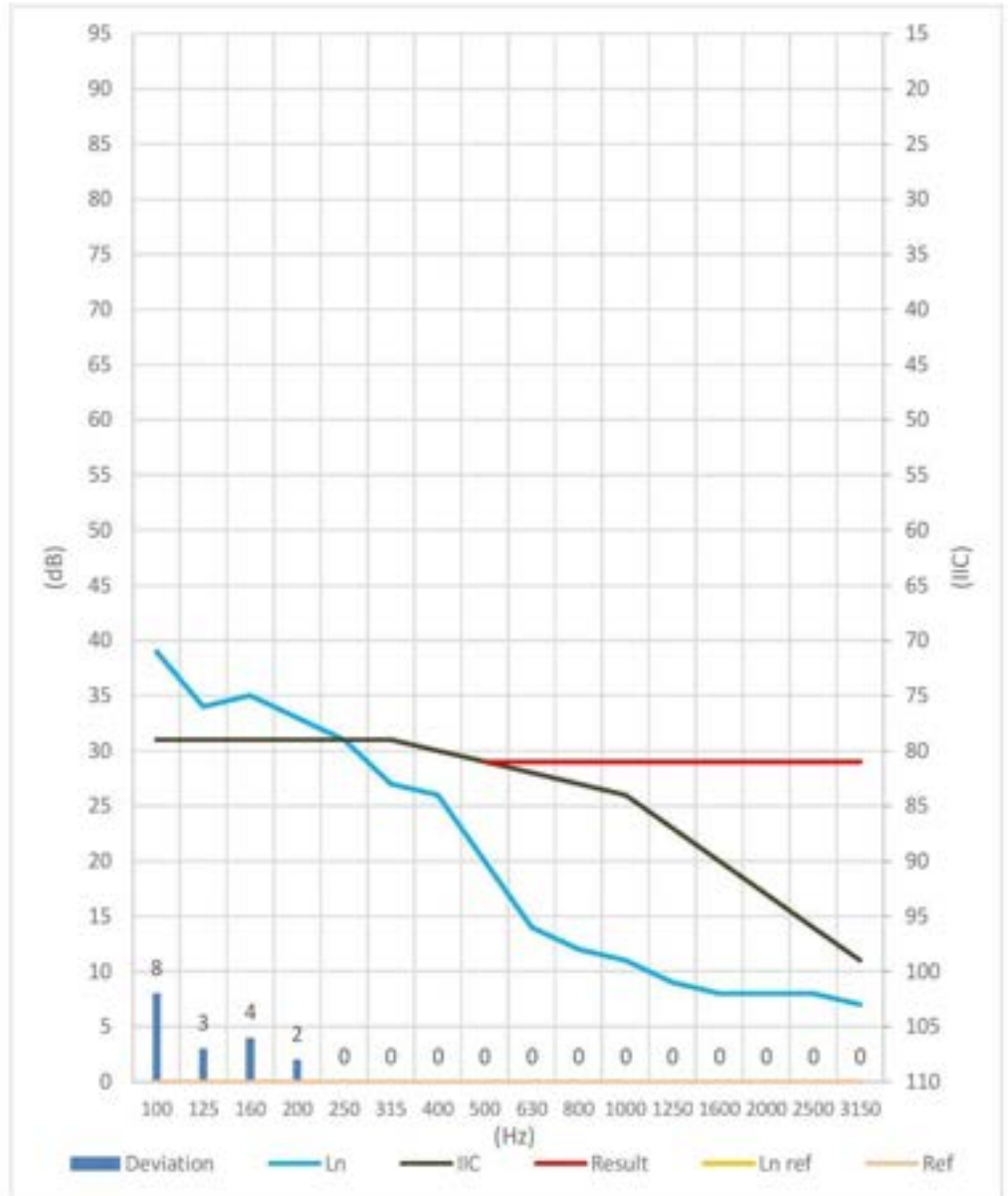
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIIC</b>	<b>81</b>
Defavorable deviations	17

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	39	34	35	33	31	27	26	20	14	12	11	9	8	8	8	7
IIC	31	31	31	31	31	31	30	29	28	27	26	23	20	17	14	11
Deviation	8	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0

Carpet  
AcoustiTECH Lead 4.5  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 83



**Project : SAX - Raymond Poulin**

**Test : Test 21 - AcoustiTECH Lead 45 + Jute carpet**

**Description :**

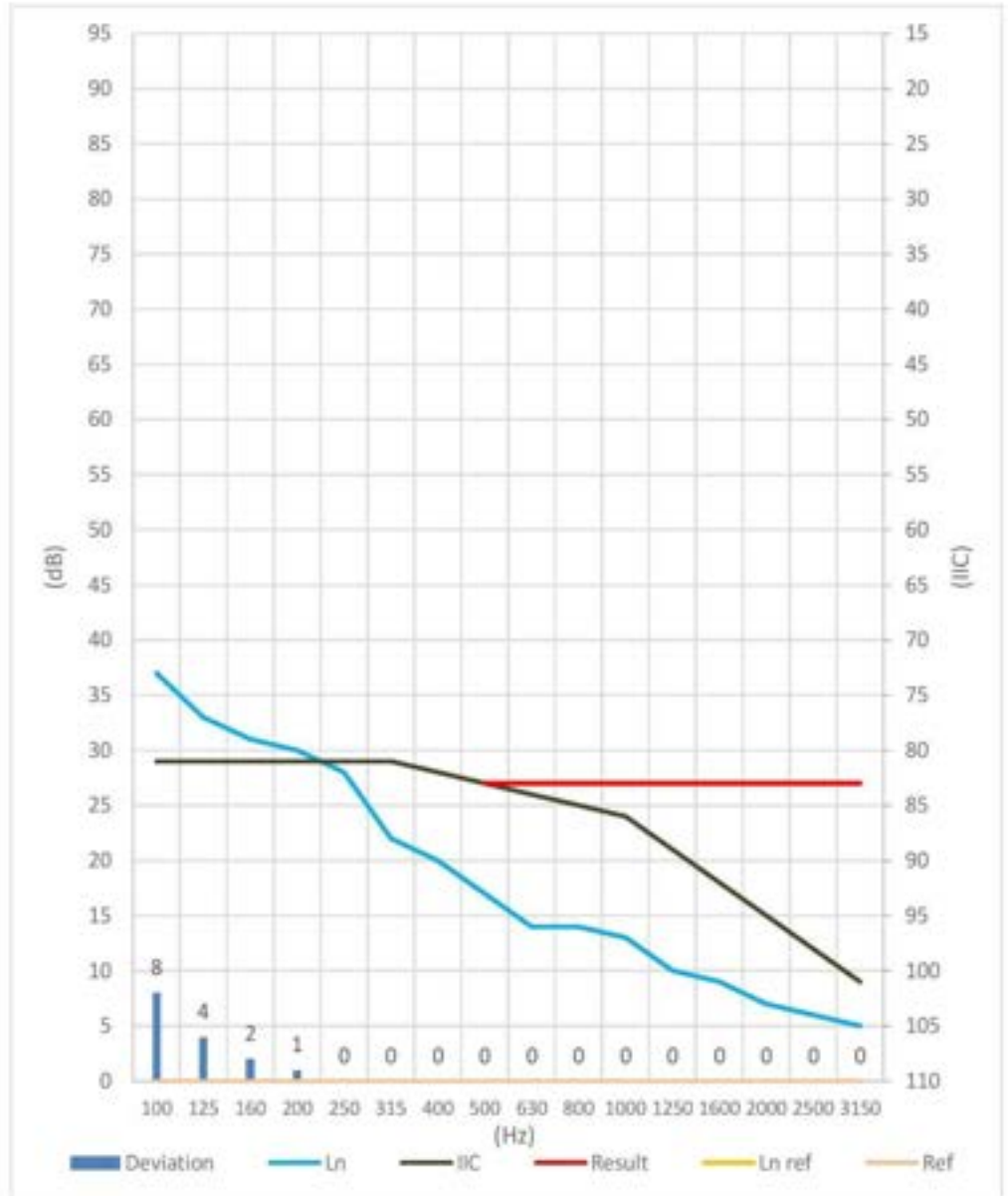
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIRC</b>	<b>83</b>
Defavorable deviations	15

**Assembling schema**

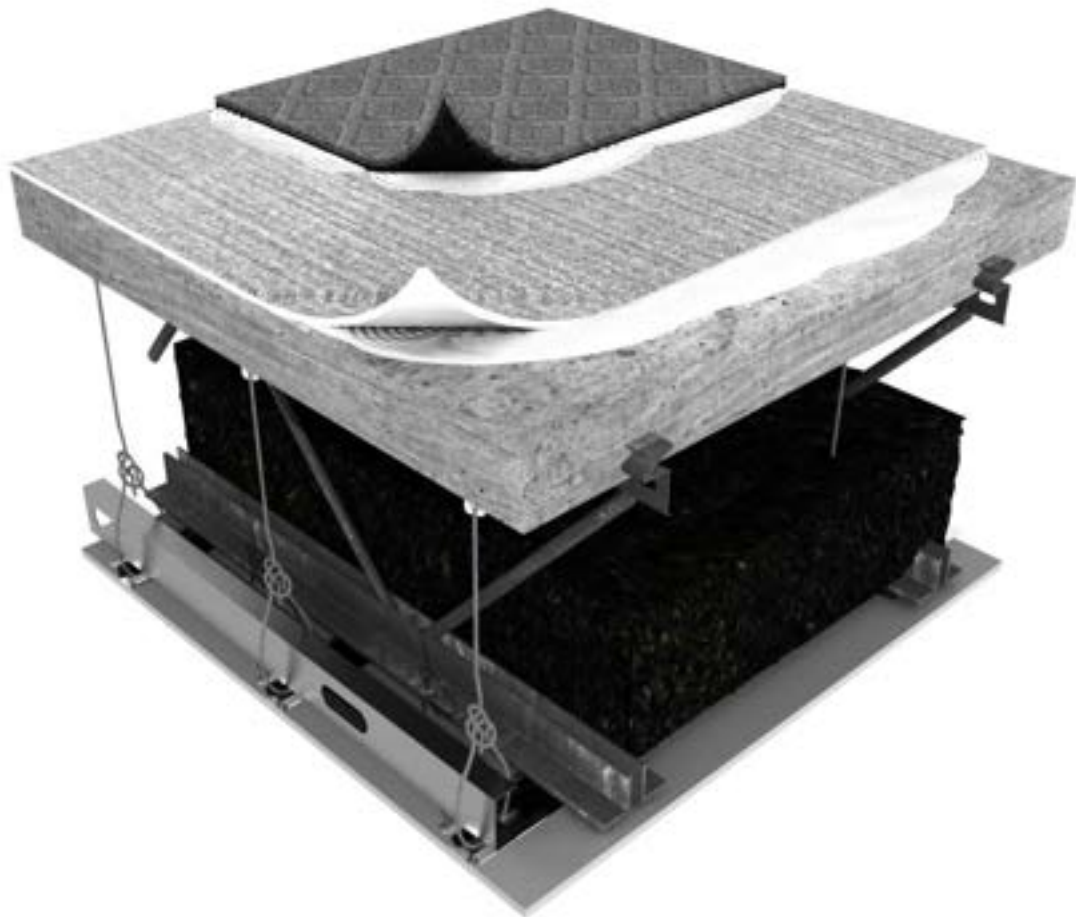
4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	37	33	31	30	28	22	20	17	14	14	13	10	9	7	6	5
IIC	29	29	29	29	29	29	28	27	26	25	24	21	18	15	12	9
Deviation	8	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0

Carpet  
AcoustiTECH 5000  
RESISTOSOUND ACOUSTIVIBE CDC

AIIC 84



**Project : SAX - Raymond Poulin**

**Test : Test 32 - AcoustiTECH TECH 5000 + Jute carpet**

**Description :**

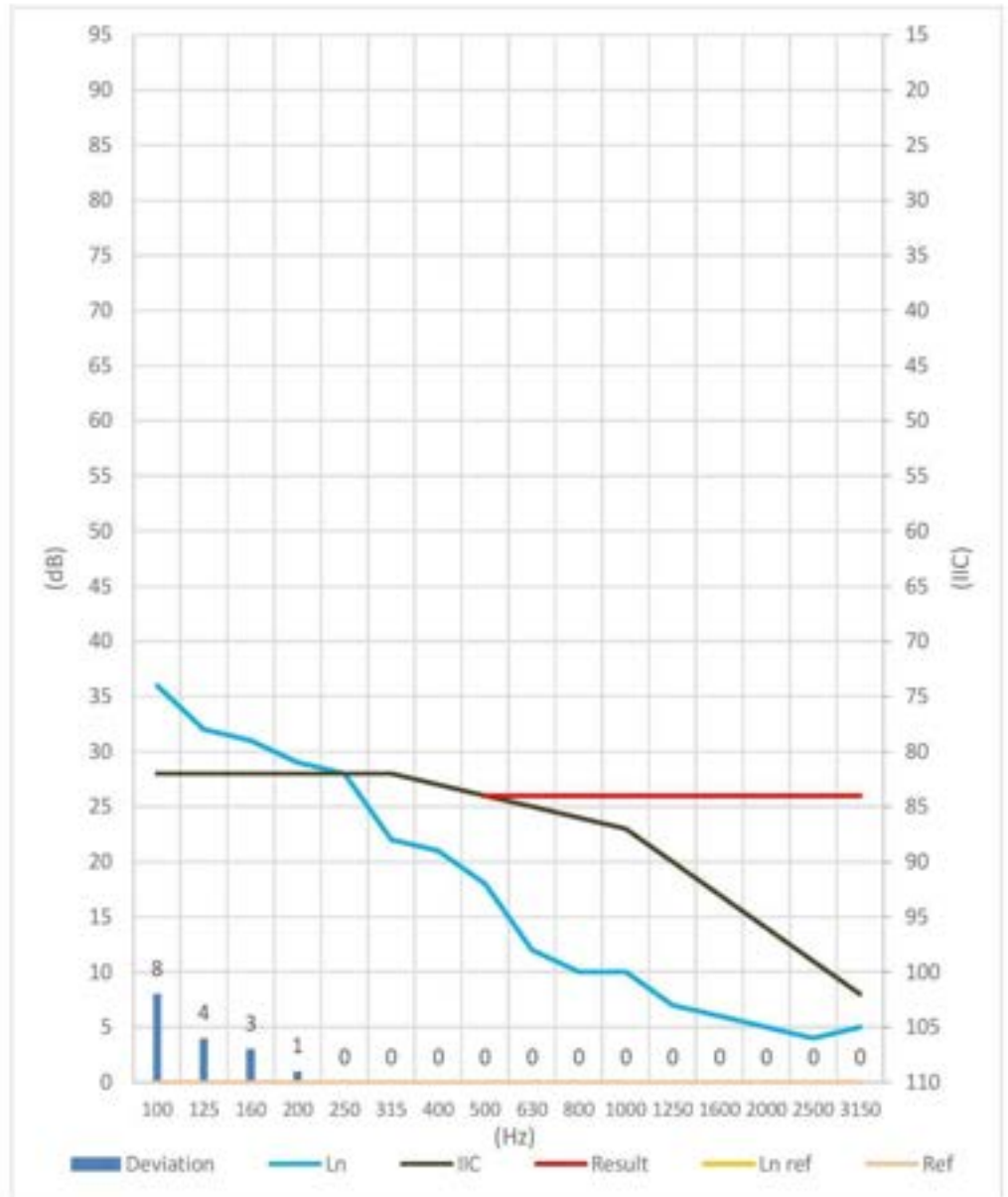
Emitting surface (m <sup>2</sup> )	16,8
Emitting volume (m <sup>3</sup> )	41,2
Tested surface (m <sup>2</sup> )	2,3
Receiving surface (m <sup>2</sup> )	16,8
Receiving volume (m <sup>3</sup> )	41,2

**Results :**

<b>AIIIC</b>	<b>84</b>
Defavorable deviations	16

**Assembling schema**

4" Polished Concrete Slab  
Hambro D500  
Blown Cellulose  
Acoustical Suspension (Acoustivibe)  
5/8" Gypsum Board (Fire Code)  
5/8" Gypsum Board (Fire Code)



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	36	32	31	29	28	22	21	18	12	10	10	7	6	5	4	5
IIC	28	28	28	28	28	28	27	26	25	24	23	20	17	14	11	8
Deviation	8	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0







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## HAMBRO D500 STEEL STRUCTURE



## ASSEMBLIES AND ACOUSTIC TEST REPORTS

# BARE SLAB

## AIIC 27



**Project : Renaissance (Hambro D-500)**

**Test : Test 001 - Bare slab**

**Description :**

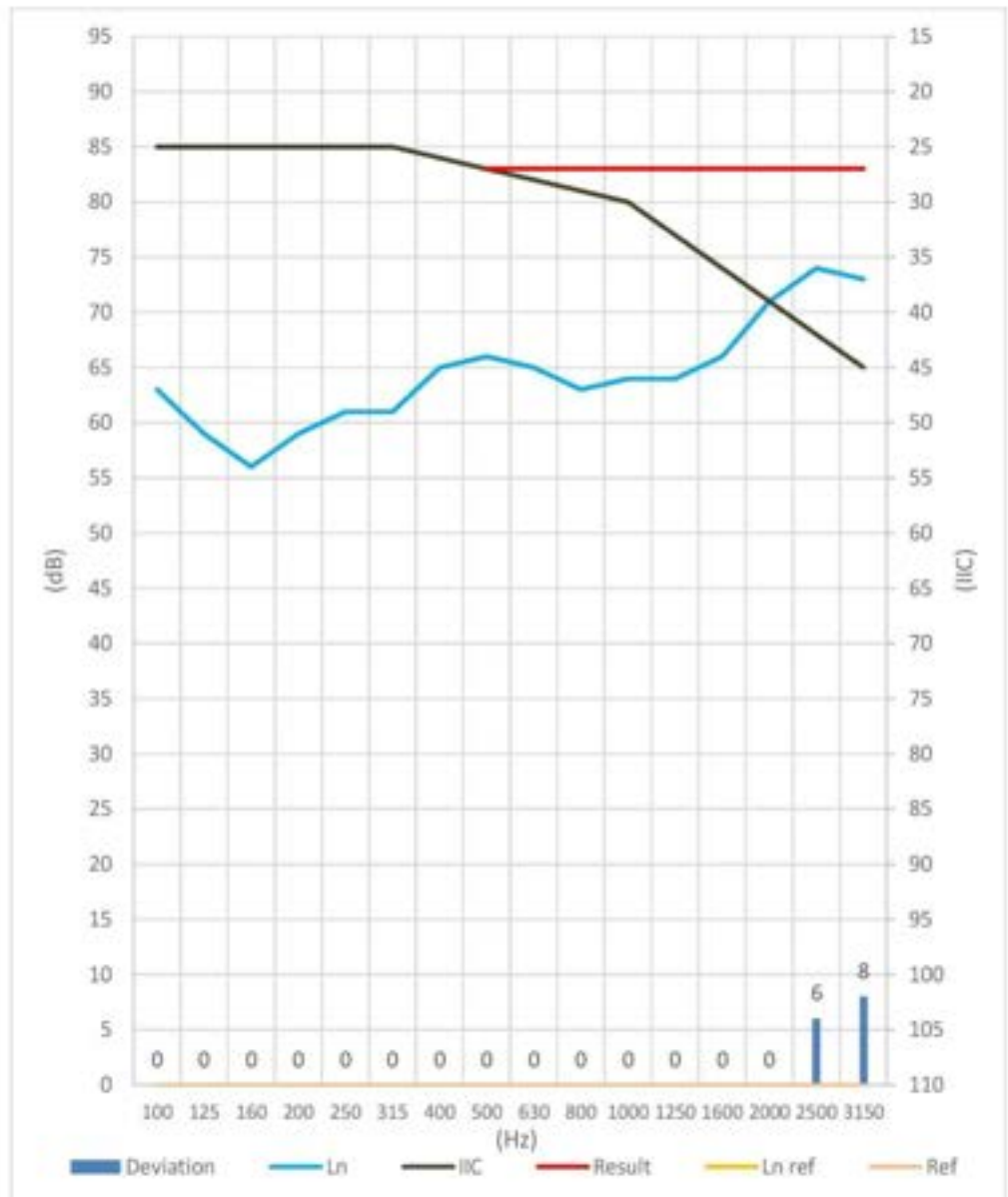
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>27</b>
Defavorable deviations	14

**Assembling schema**

89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	63	59	56	59	61	61	65	66	65	63	64	64	66	71	74	73
IIC	85	85	85	85	85	85	84	83	82	81	80	77	74	71	68	65
Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8

# Luxury vinyl tile/plank

## AIIC 31



**Project : Renaissance (Hambro D-500)**

**Test : Test 003 - LVT 3,2mm**

**Description :**

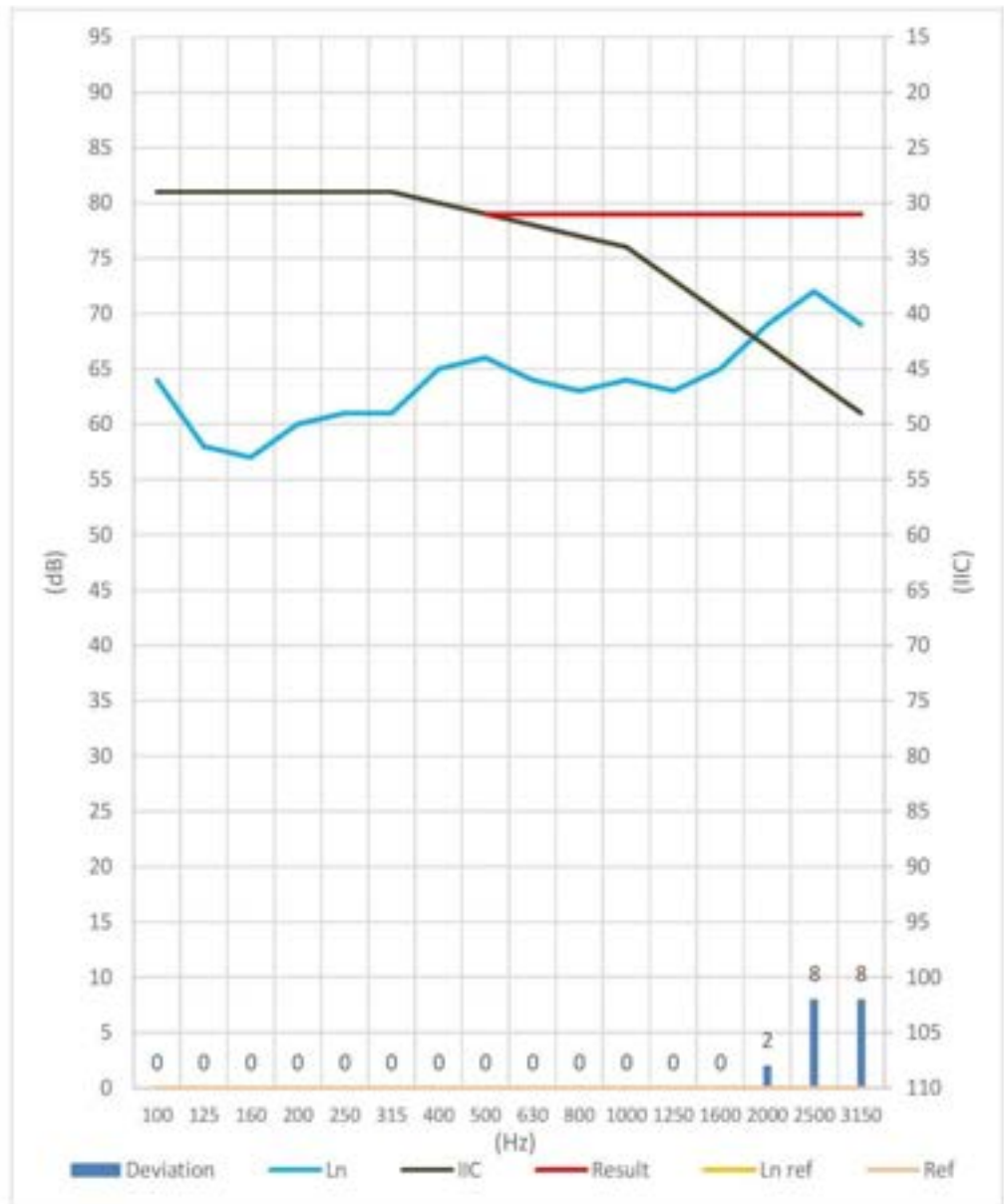
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>31</b>
Defavorable deviations	18

**Assembling schema**

89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	64	58	57	60	61	61	65	66	64	63	64	63	65	69	72	69
IIC	81	81	81	81	81	81	80	79	78	77	76	73	70	67	64	61
Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	8

# Luxury vinyl tile/plank AcoustiTECH LV

## AIIC 57



**Project : Renaissance (Hambro D-500)**  
**Test : Test 016 - AcoustiTECH LV + LVT 3,2mm**

**Description :**

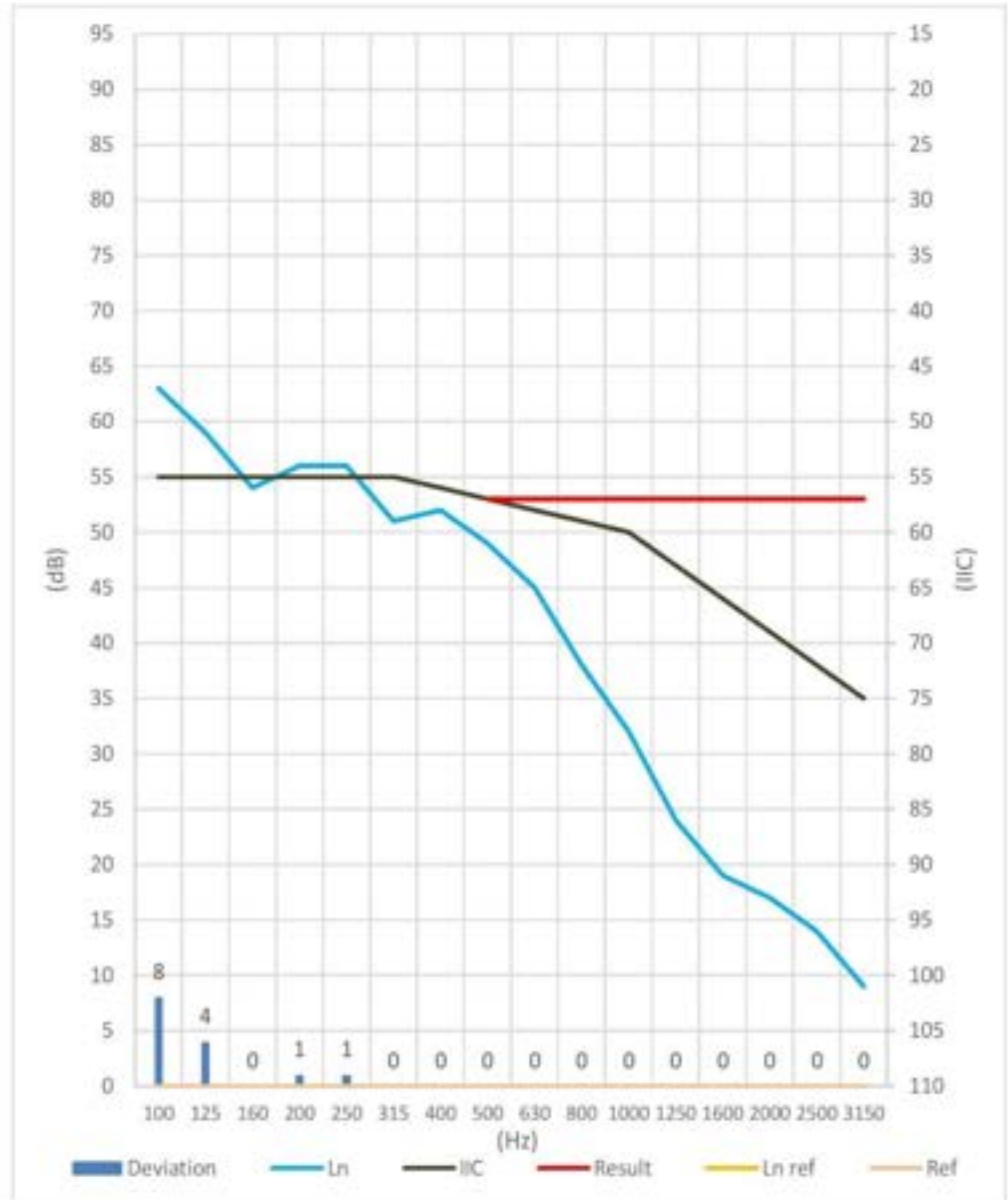
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>57</b>
Defavorable deviations	14

**Assembling schema**

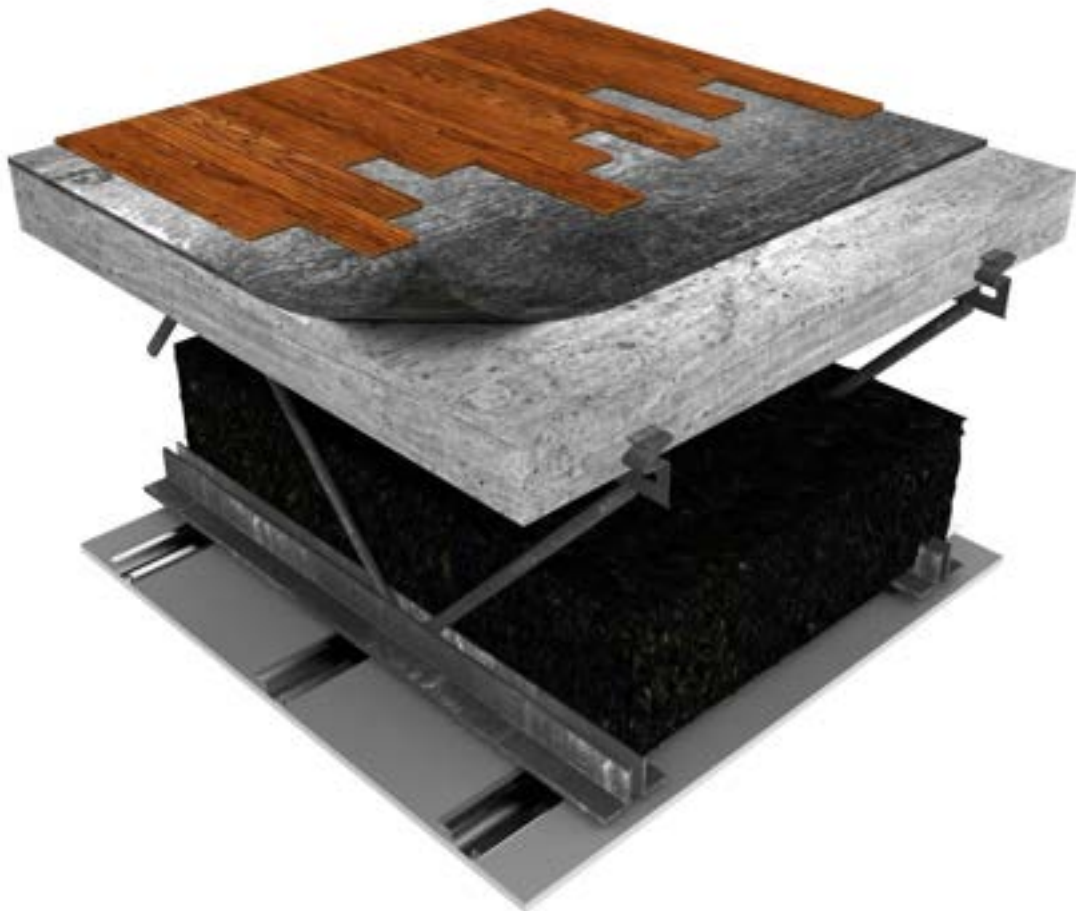
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	63	59	54	56	56	51	52	49	45	38	32	24	19	17	14	9
IIC	55	55	55	55	55	55	54	53	52	51	50	47	44	41	38	35
Deviation	8	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0

# Floating floor AcoustiTECH VP

## AIIC 56





**Project : Renaissance (Hambro D-500)**

**Test : Test 005 - AcoustiTECH VP + 19mm Engineered Wood Flooring**

**Description :**

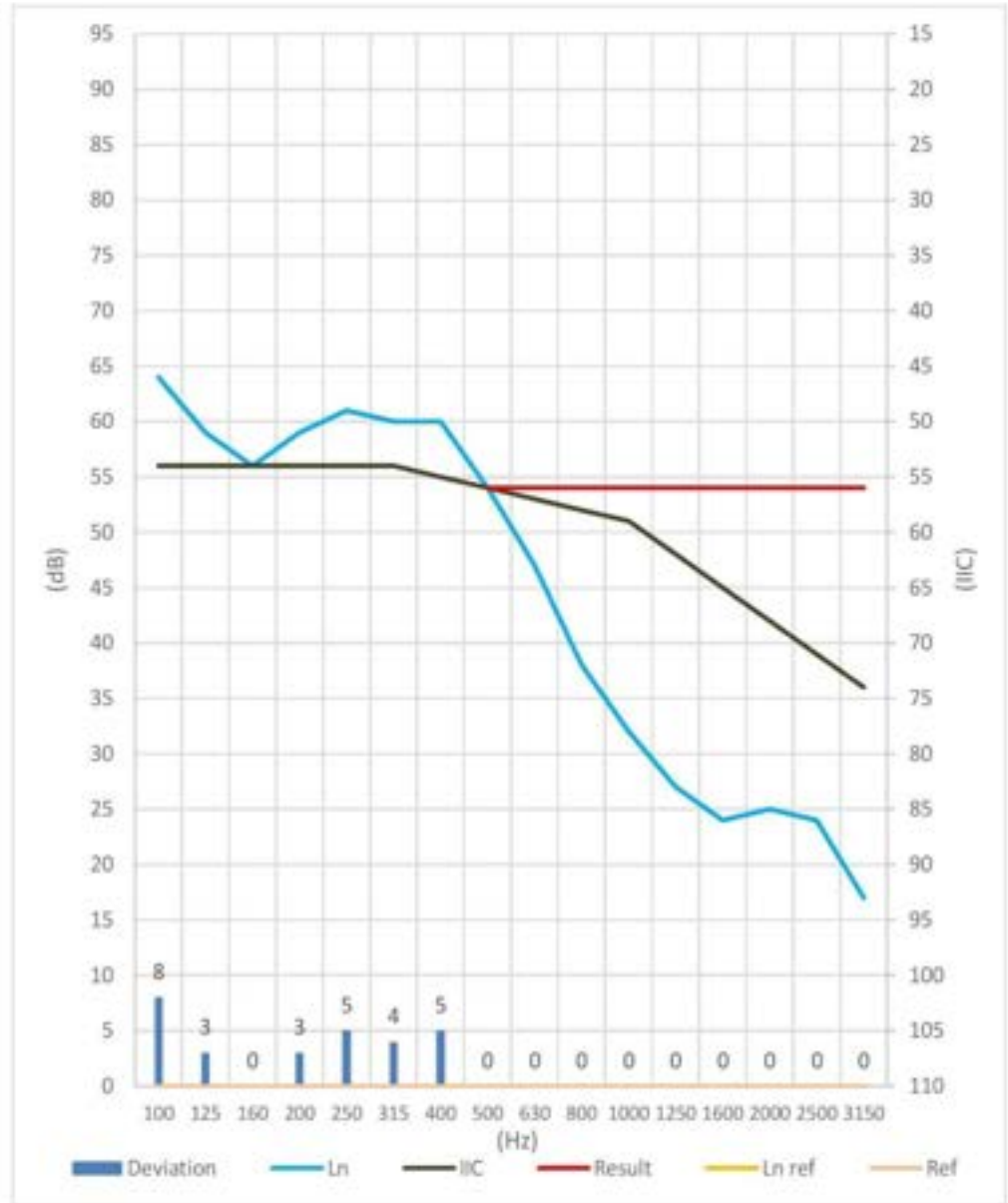
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>56</b>
Defavorable deviations	28

**Assembling schema**

89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	64	59	56	59	61	60	60	54	47	38	32	27	24	25	24	17
IIC	56	56	56	56	56	56	55	54	53	52	51	48	45	42	39	36
Deviation	8	3	0	3	5	4	5	0	0	0	0	0	0	0	0	0

# Floating floor RESISTOSOUND Insonofloor

## AIIC 60



**Project : Renaissance (Hambro D-500)**

**Test : Test 015 - Resistosound Insonofloor + 19mm Engineered Wood Flooring**

**Description :**

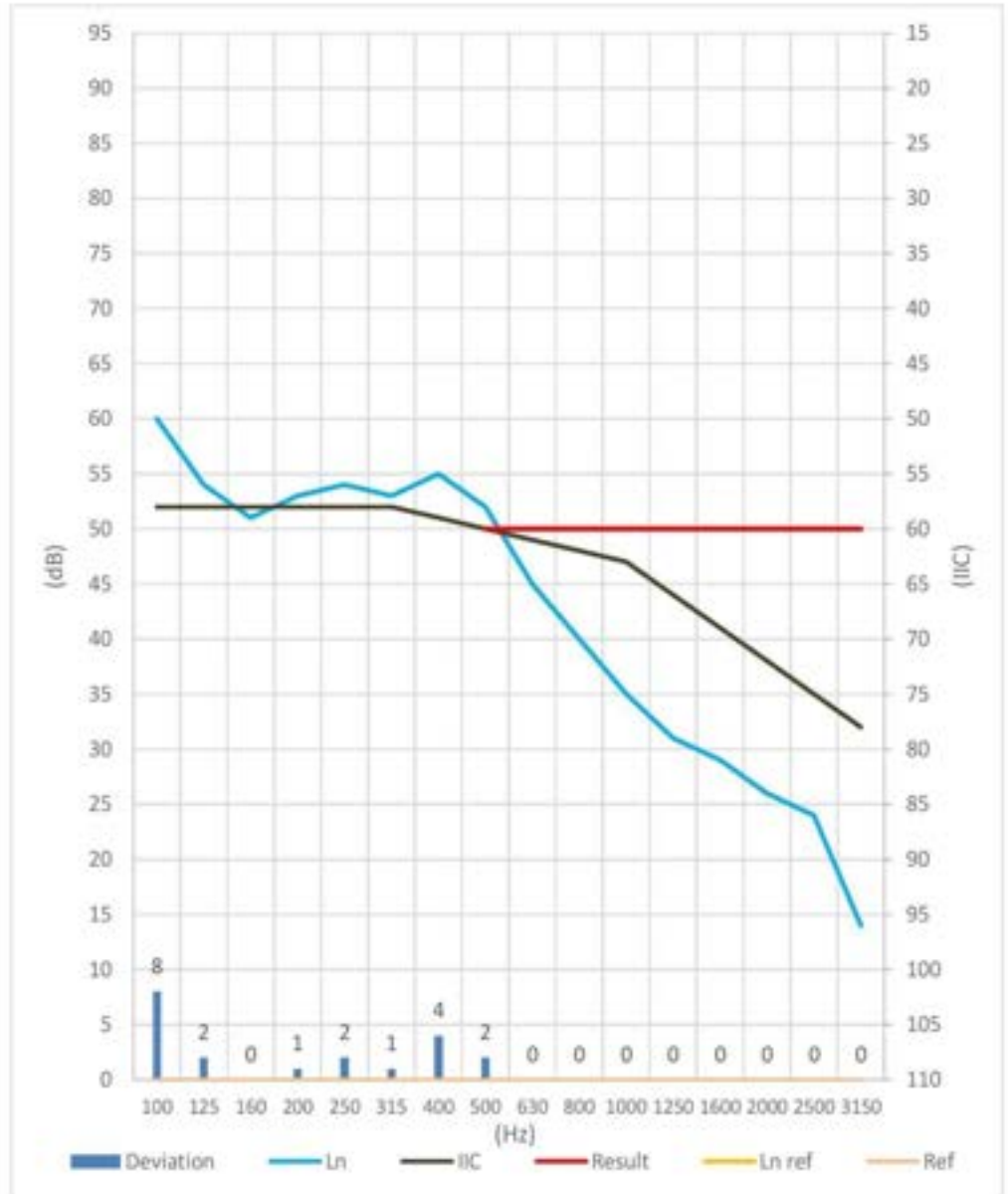
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>60</b>
Defavorable deviations	20

**Assembling schema**

89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	60	54	51	53	54	53	55	52	45	40	35	31	29	26	24	14
IIC	52	52	52	52	52	52	51	50	49	48	47	44	41	38	35	32
Deviation	8	2	0	1	2	1	4	2	0	0	0	0	0	0	0	0

# Engineered Hardwood floor AcoustiTECH Lead 3.3

## AIIC 57



**Project : Renaissance (Hambro D-500)**

**Test : Test 006 - AcoustiTECH Lead 33 + 19mm Engineered Wood Flooring**

**Description :**

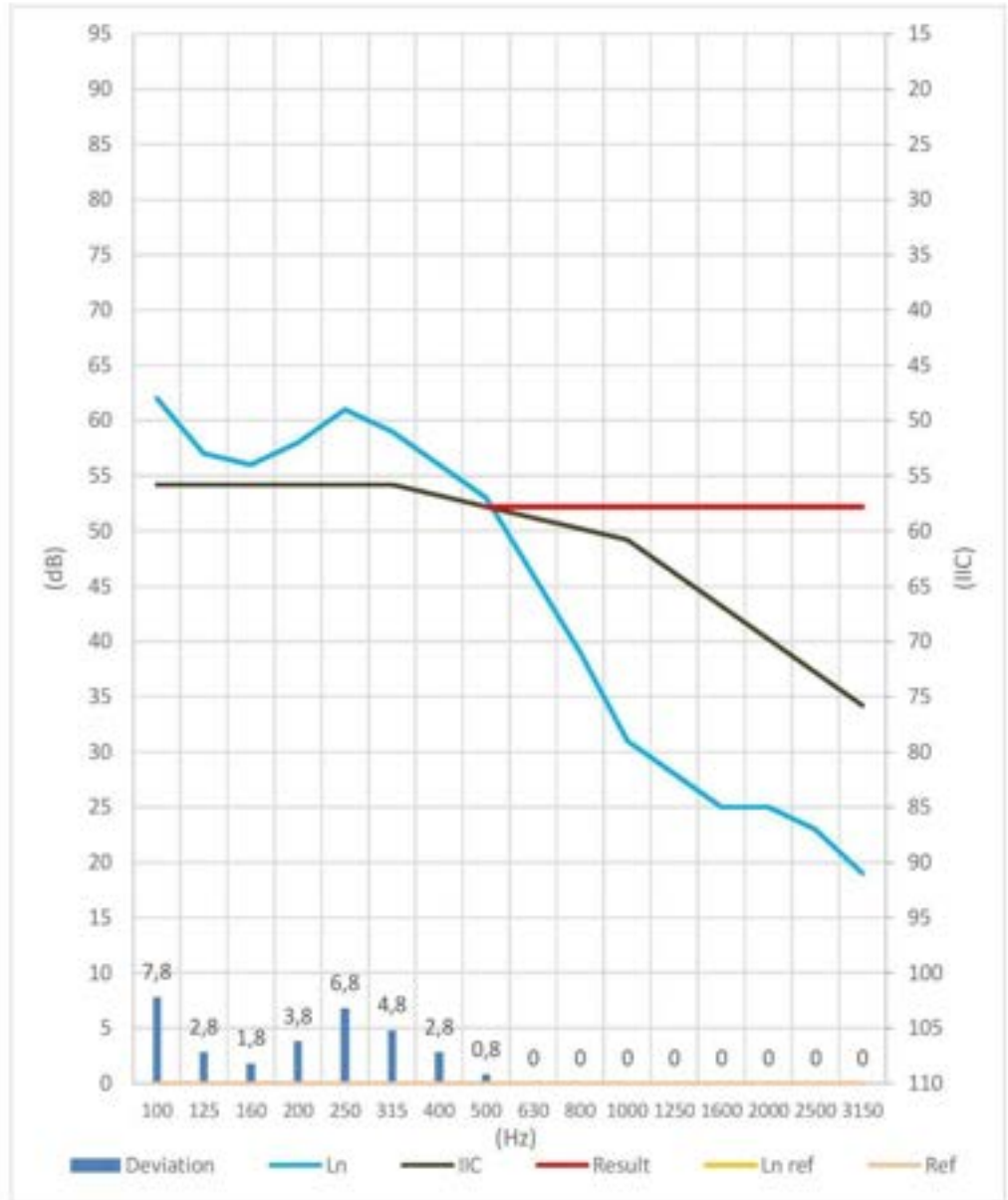
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>57,8</b>
Defavorable deviations	31,4

**Assembling schema**

89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	62	57	56	58	61	59	56	53	46	39	31	28	25	25	23	19
IIC	54,2	54,2	54,2	54,2	54,2	54,2	53,2	52,2	51,2	50,2	49,2	46,2	43,2	40,2	37,2	34,2
Deviation	7,8	2,8	1,8	3,8	6,8	4,8	2,8	0,8	0	0	0	0	0	0	0	0

# Engineered Hardwood floor AcoustiTECH Lead 6

## AIIC 58



**Project : Renaissance (Hambro D-500)**

**Test : Test 010 - AcoustiTECH Lead 6 + 19mm Engineered Wood Flooring**

**Description :**

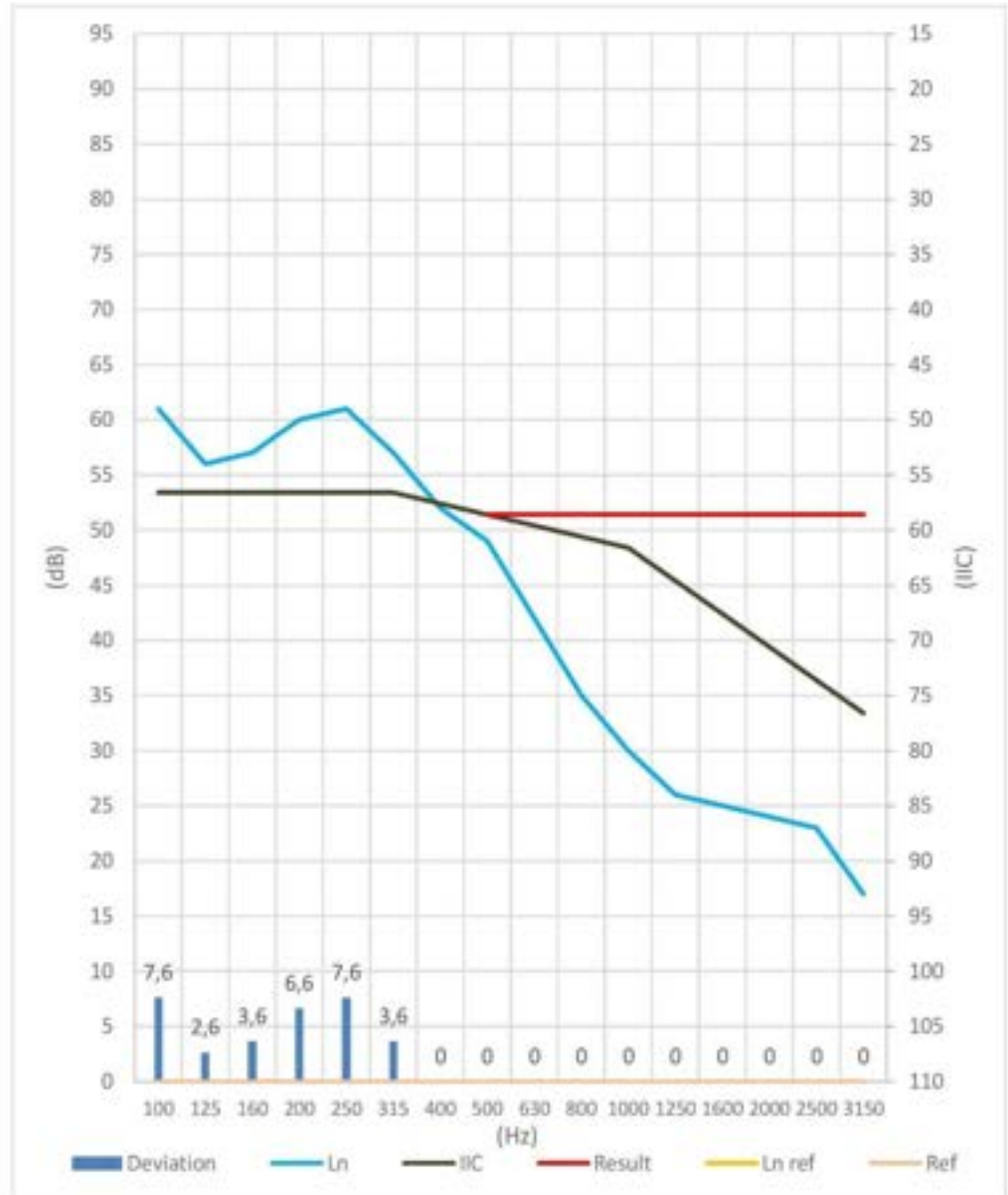
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIIC</b>	<b>58,6</b>
Defavorable deviations	31,6

**Assembling schema**

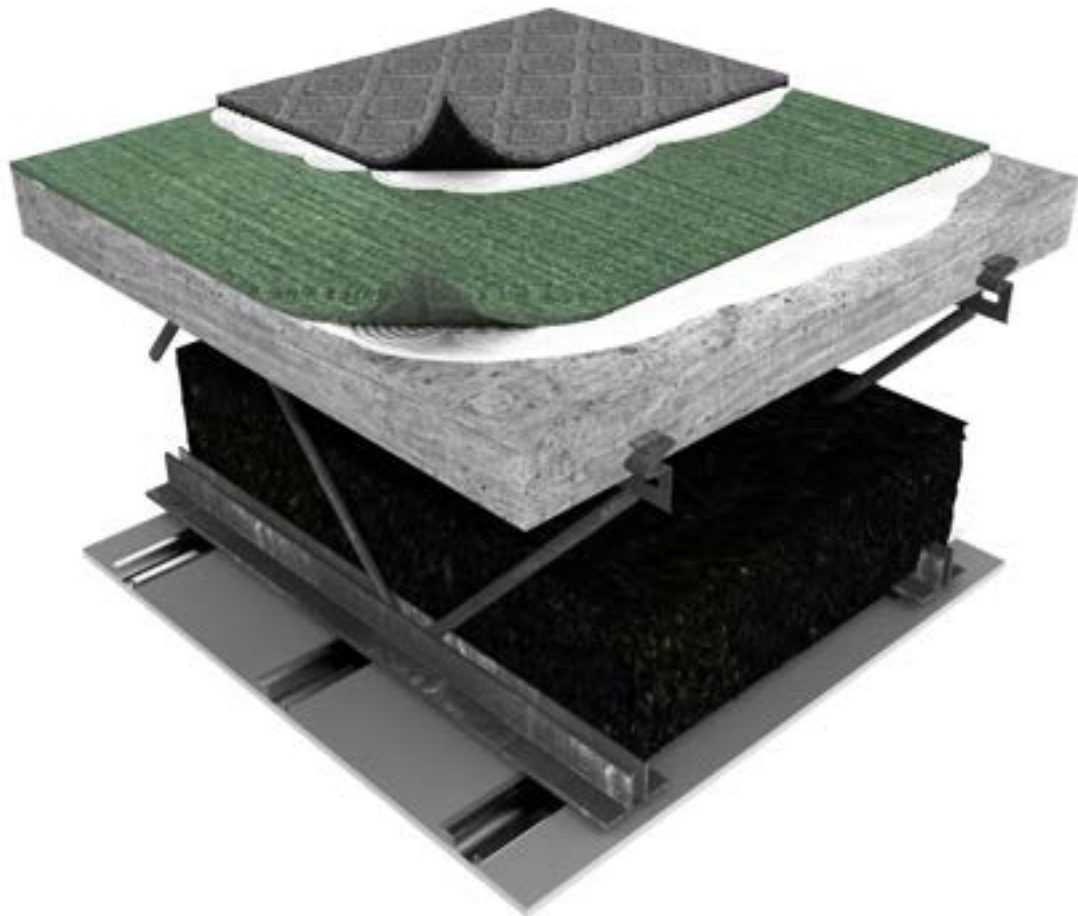
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	61	56	57	60	61	57	52	49	42	35	30	26	25	24	23	17
IIC	53,4	53,4	53,4	53,4	53,4	53,4	52,4	51,4	50,4	49,4	48,4	45,4	42,4	39,4	36,4	33,4
Deviation	7,6	2,6	3,6	6,6	7,6	3,6	0	0	0	0	0	0	0	0	0	0

# Carpet AcoustiTECH Lead 3.3

## AIIC 62





**Project : Renaissance (Hambro D-500)**

**Test : Test 007 - AcoustiTECH Lead 33 + Jute Carpet**

**Description :**

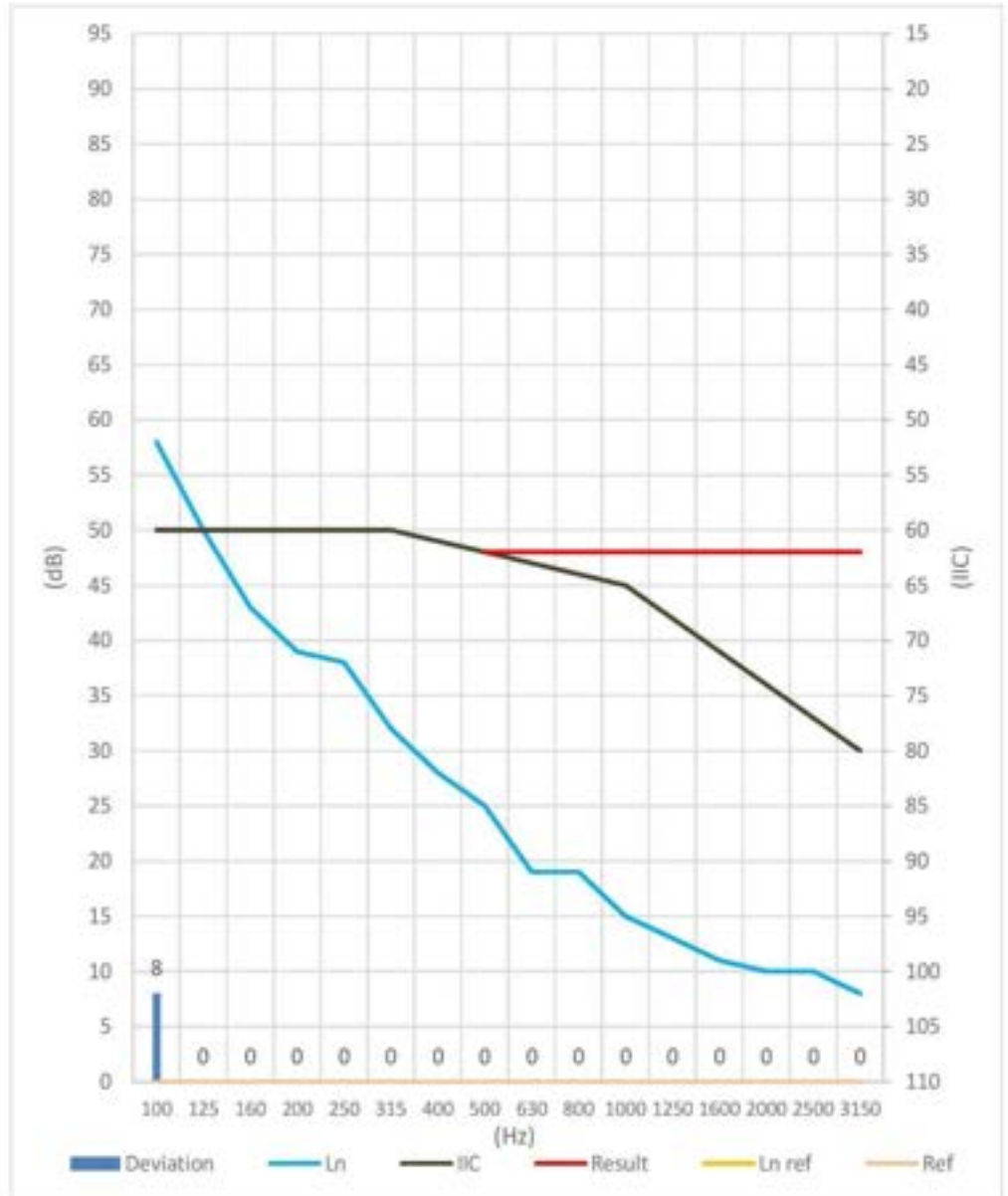
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>62</b>
Defavorable deviations	8

**Assembling schema**

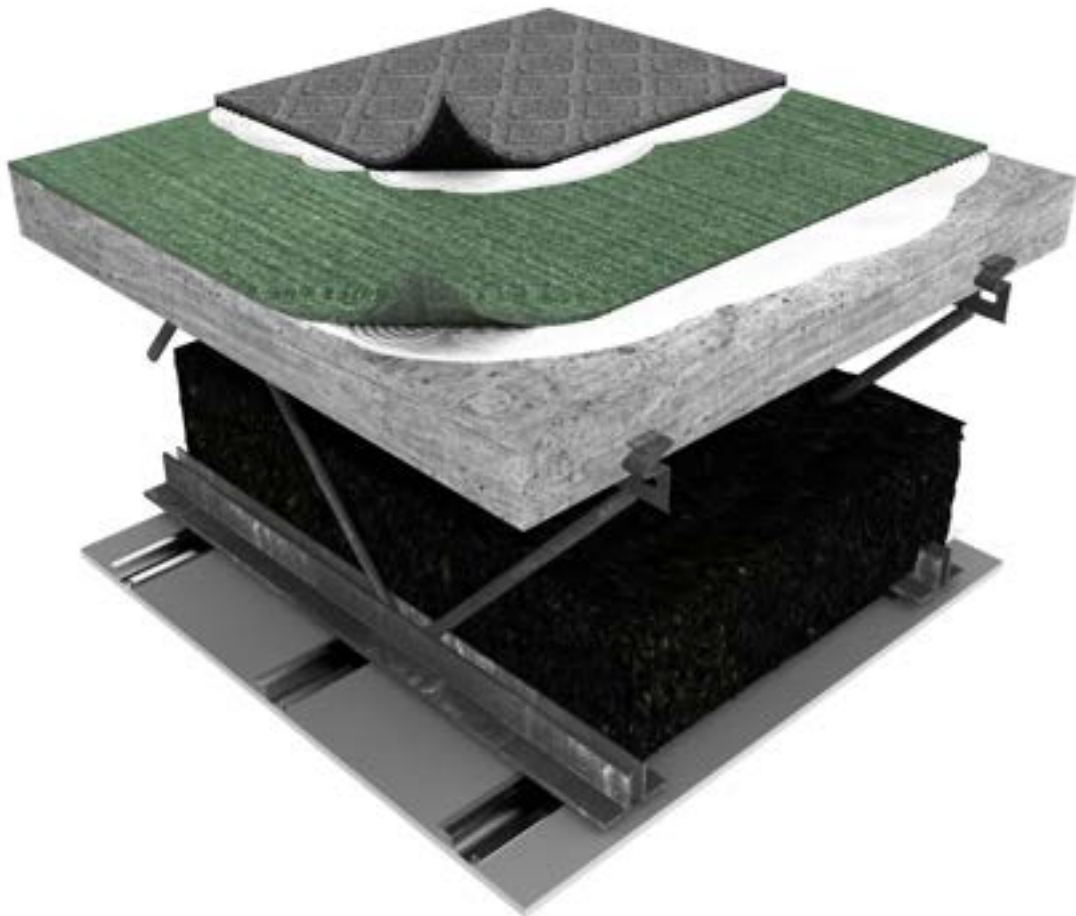
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	58	50	43	39	38	32	28	25	19	19	15	13	11	10	10	8
IIC	50	50	50	50	50	50	49	48	47	46	45	42	39	36	33	30
Deviation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

# Carpet AcoustiTECH Lead 4.5

## AIIC 63



**Project : Renaissance (Hambro D-500)**

**Test : Test 009 - AcoustiTECH Lead 45 + Jute Carpet**

**Description :**

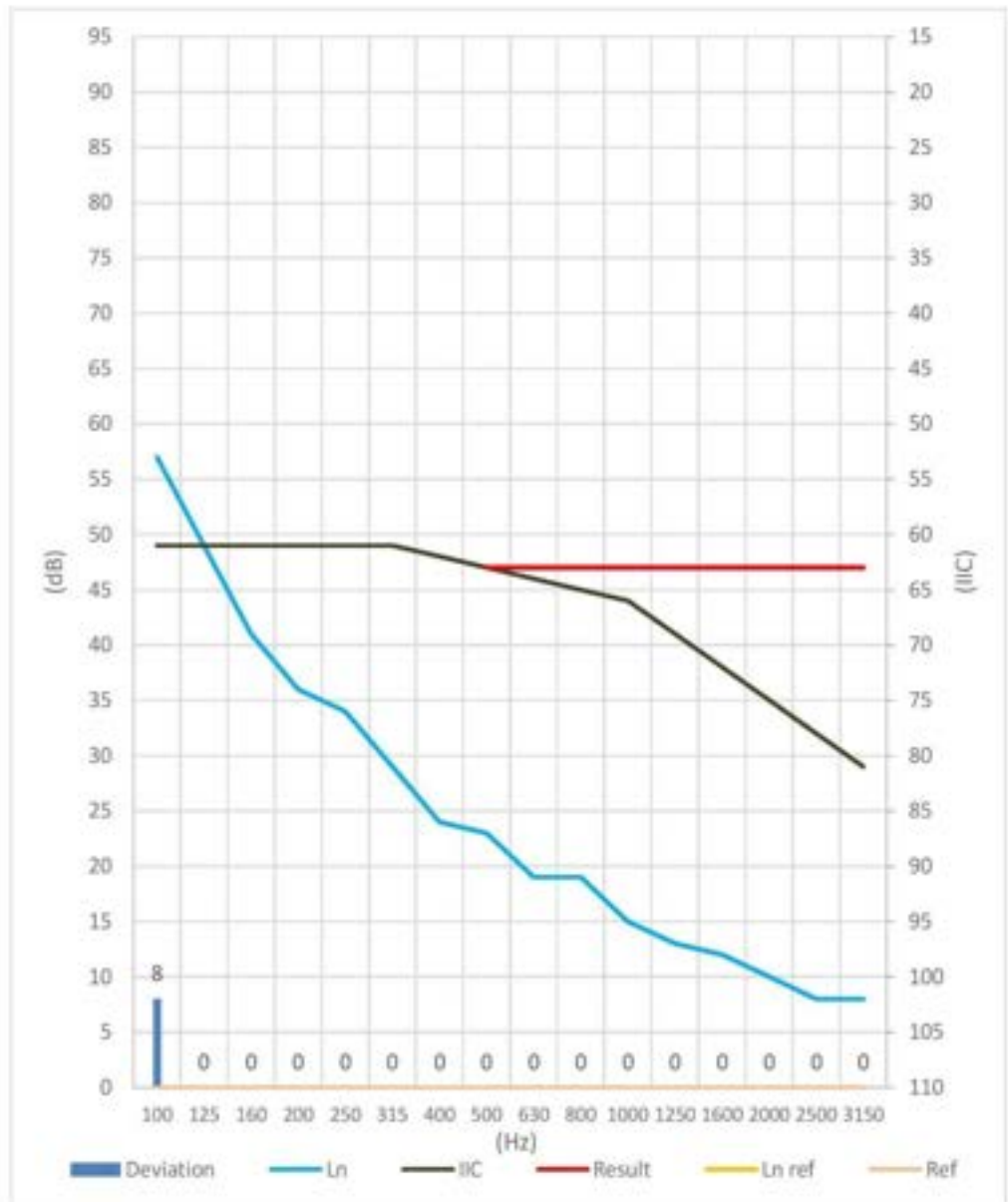
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>63</b>
Defavorable deviations	8

**Assembling schema**

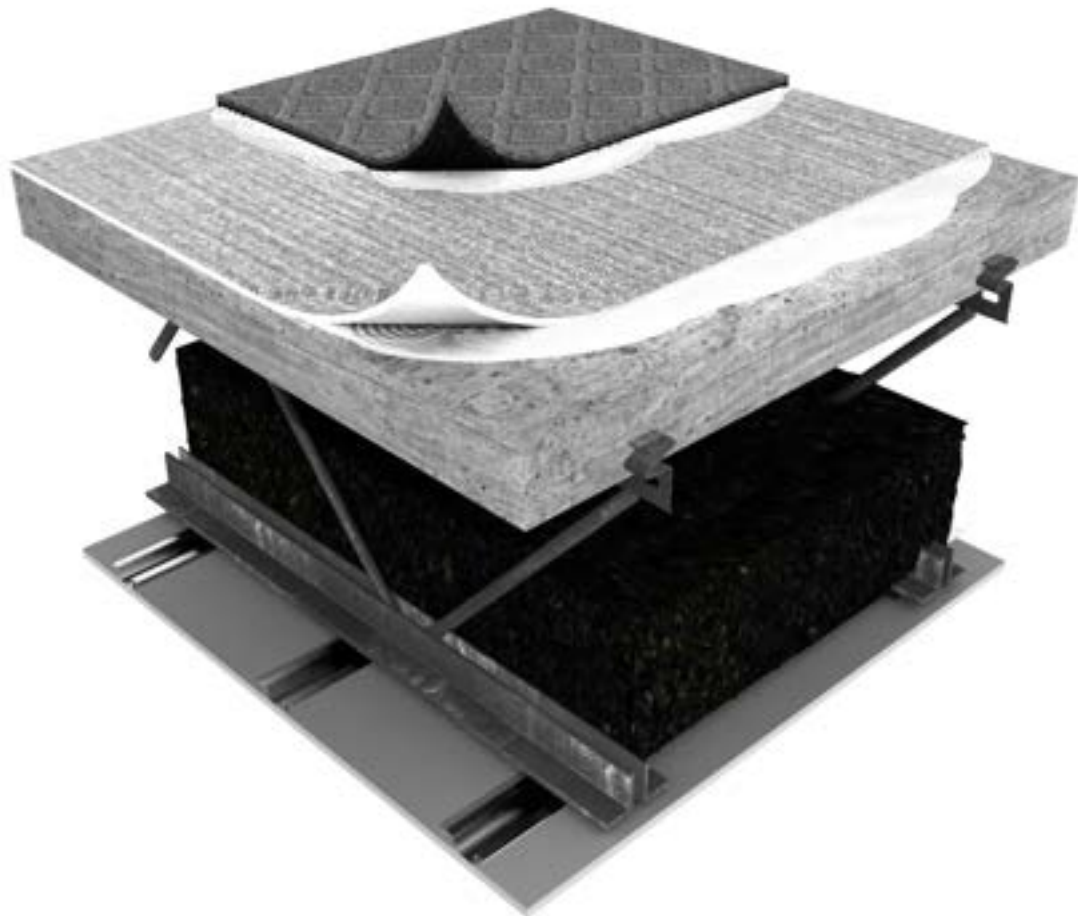
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	57	49	41	36	34	29	24	23	19	19	15	13	12	10	8	8
IIC	49	49	49	49	49	49	48	47	46	45	44	41	38	35	32	29
Deviation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

# Carpet AcoustiTECH 5000

## AIIC 65



**Project : Renaissance (Hambro D-500)**

**Test : Test 013 - AcoustiTECH TECH 5000 + Jute Carpet**

**Description :**

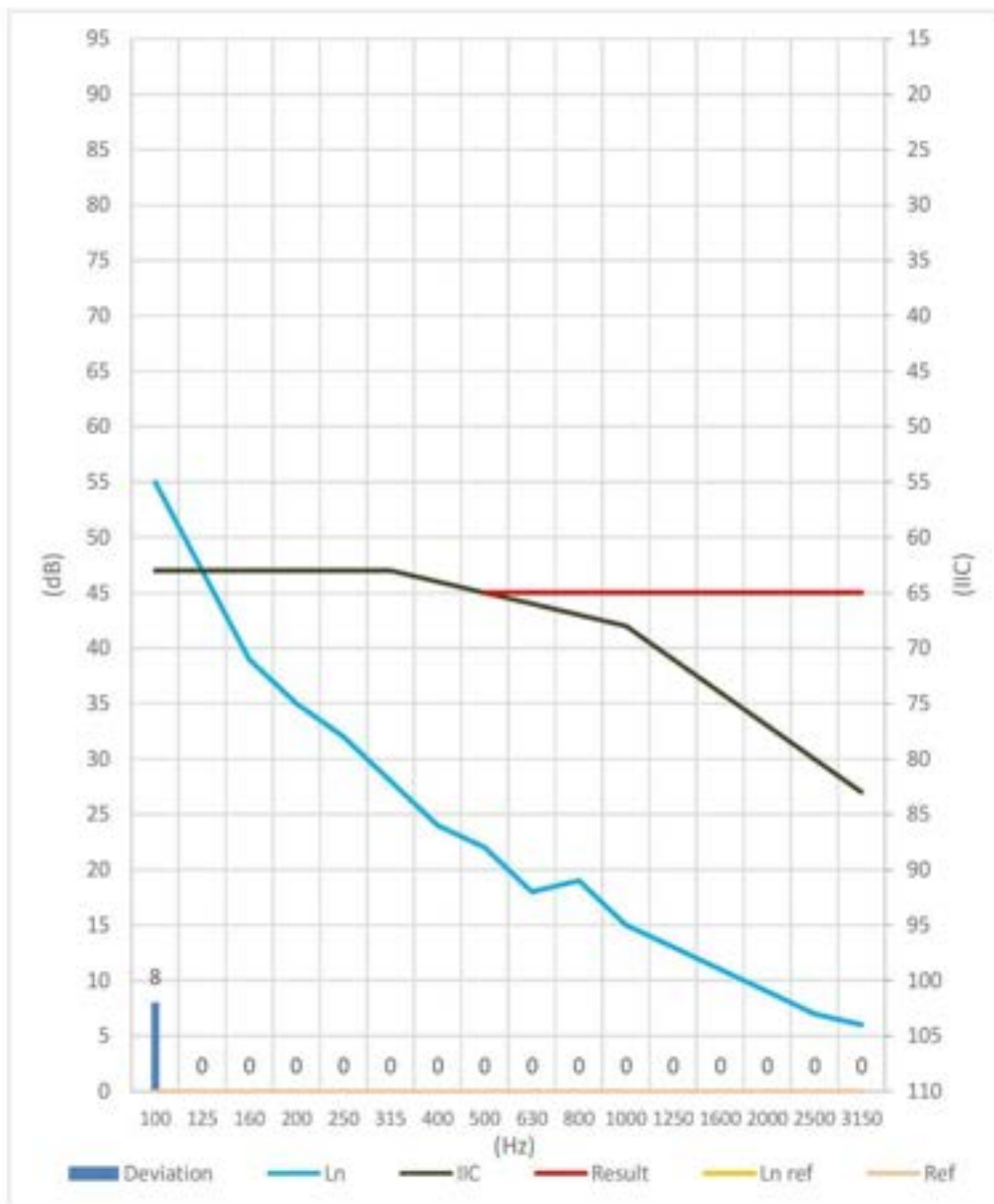
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>65</b>
Defavorable deviations	8

**Assembling schema**

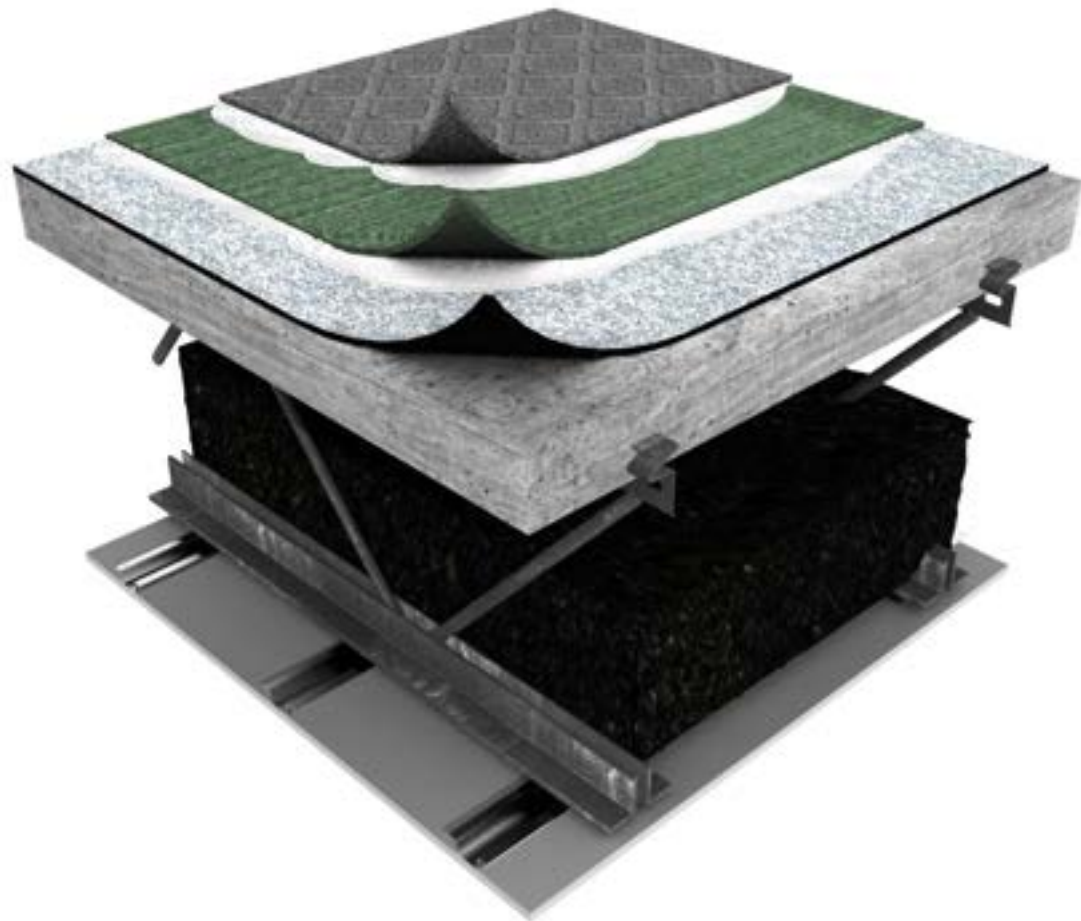
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	55	47	39	35	32	28	24	22	18	19	15	13	11	9	7	6
IIC	47	47	47	47	47	47	46	45	44	43	42	39	36	33	30	27
Deviation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Carpet  
RESISTOSOUND Acoustiboard  
AcoustiTECH Lead 3.3

AIIC 67



**Project : Renaissance (Hambro D-500)**

**Test : Test 023 - Resistosound Acoustibord + AcoustiTECH Lead 33 + Jute Carpet**

**Description :**

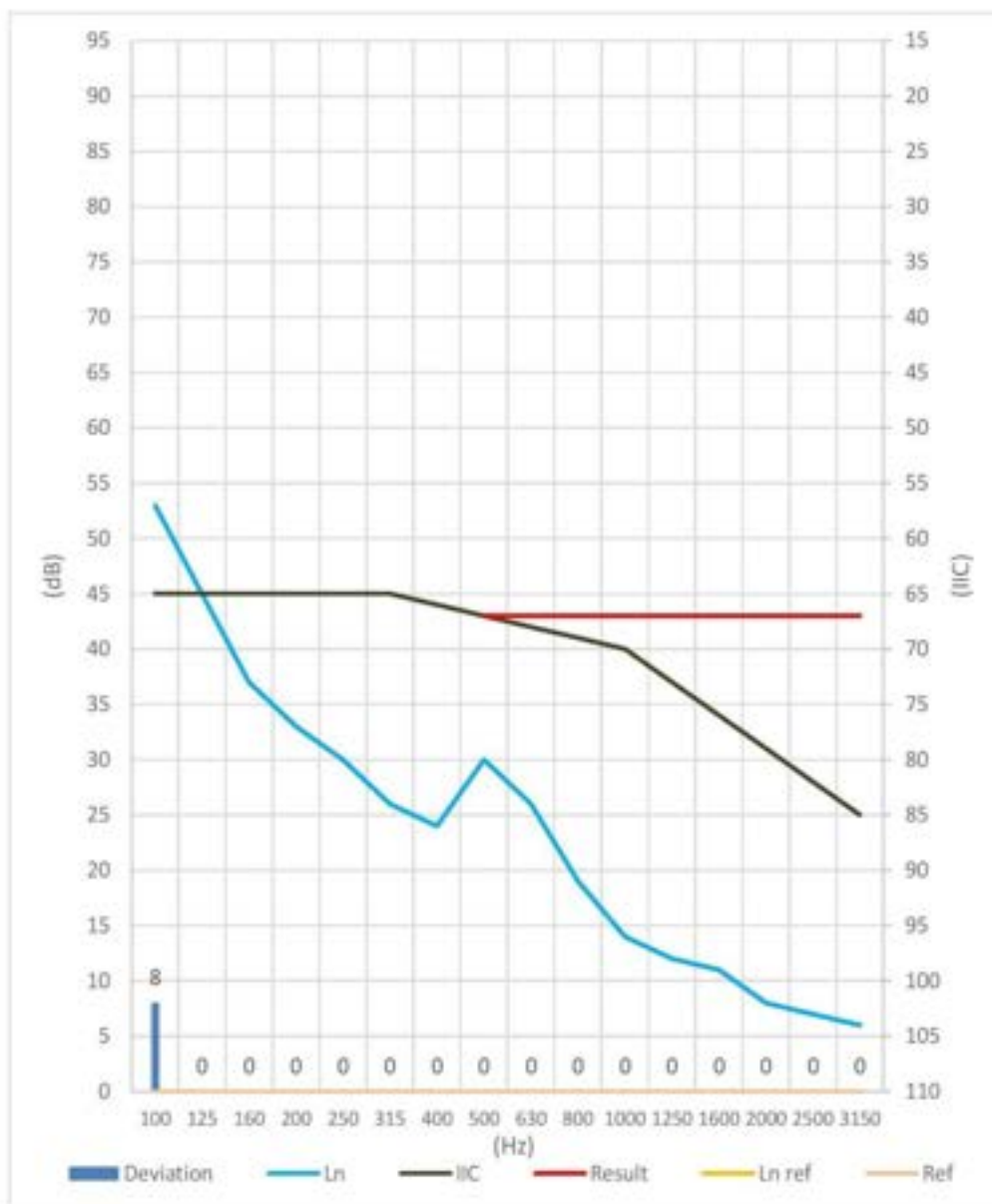
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>67</b>
Defavorable deviations	8

**Assembling schema**

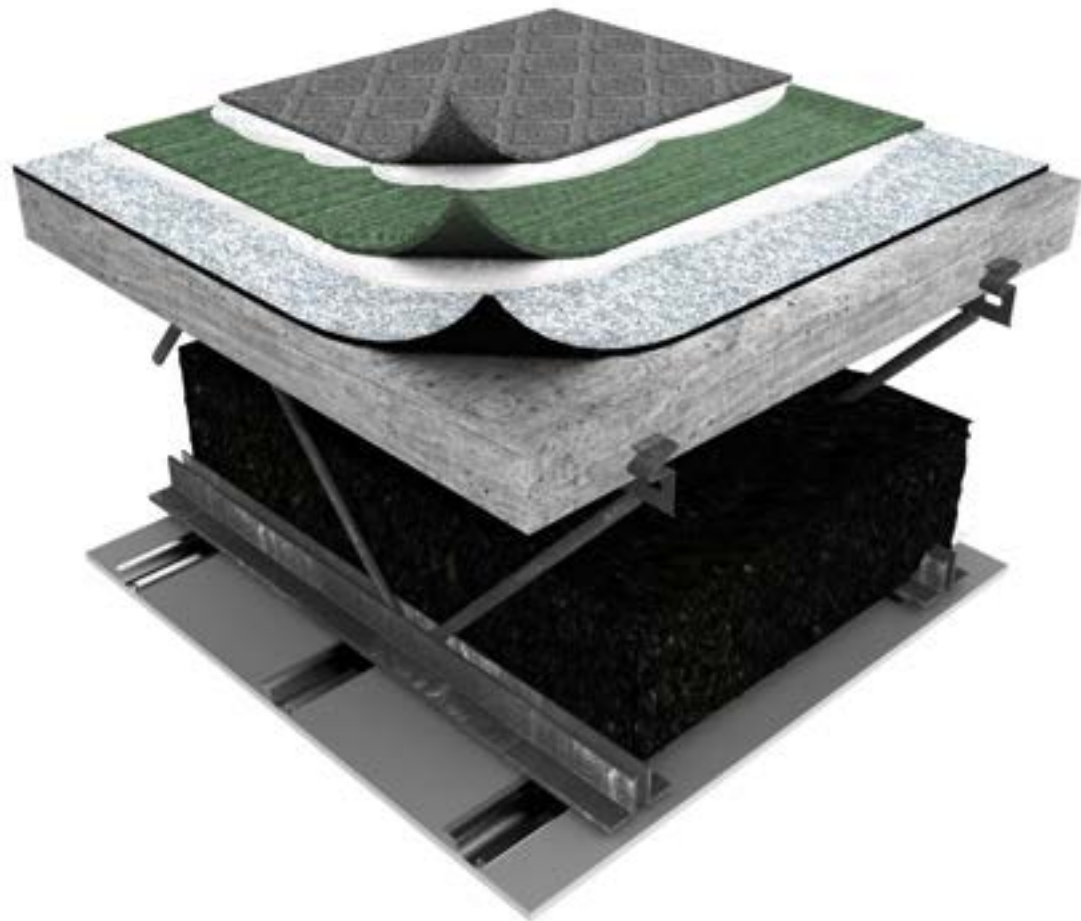
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	53	45	37	33	30	26	24	30	26	19	14	12	11	8	7	6
IIC	45	45	45	45	45	45	44	43	42	41	40	37	34	31	28	25
Deviation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Carpet  
RESISTOSOUND Acoustiboard  
AcoustiTECH Lead 4.5

AiIC 68





**Project : Renaissance (Hambro D-500)**

**Test : Test 025 - Resistosound Acoustibord + AcoustiTECH Lead 45 + Jute Carpet**

**Description :**

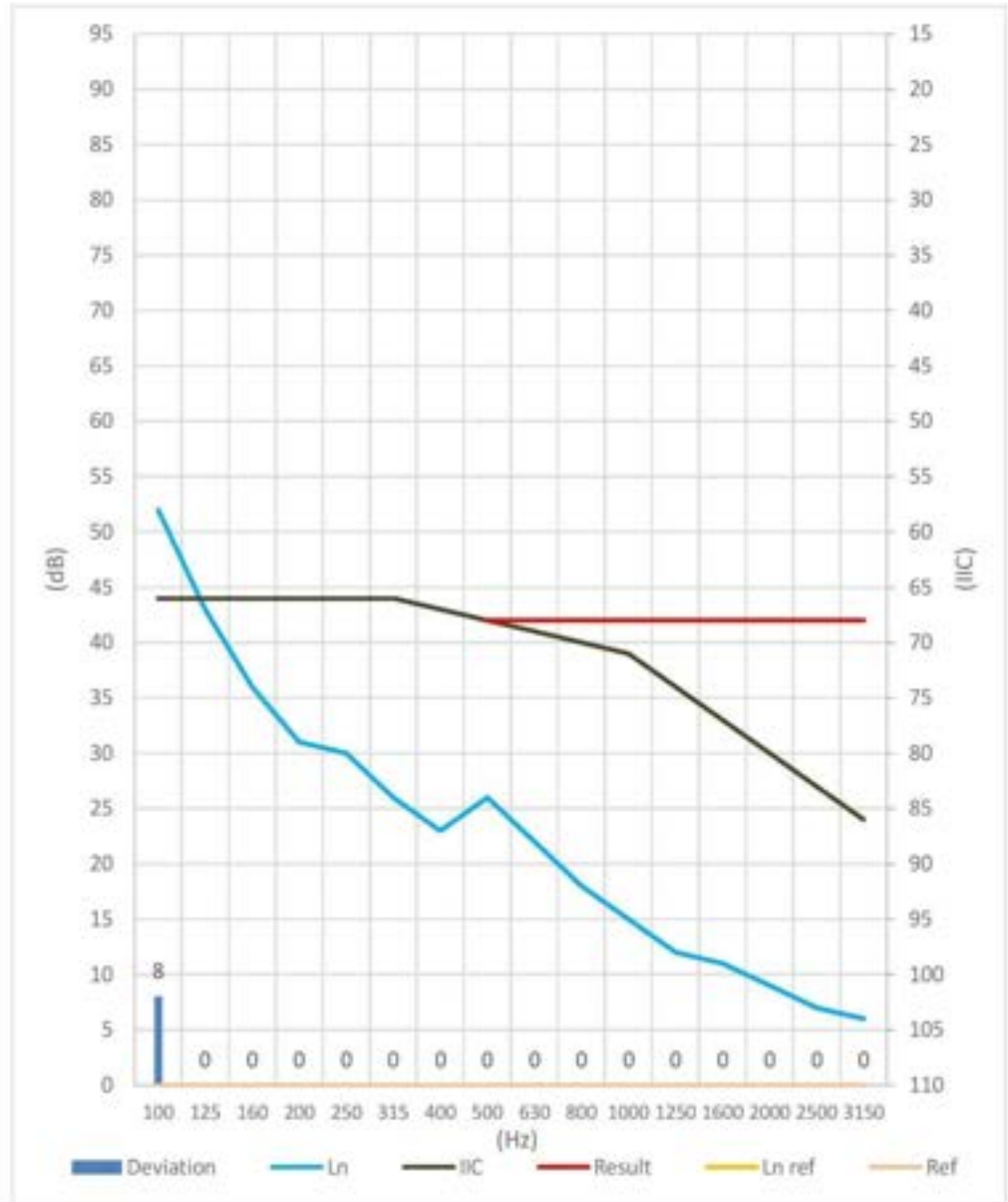
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AiIC</b>	<b>68</b>
Defavorable deviations	8

**Assembling schema**

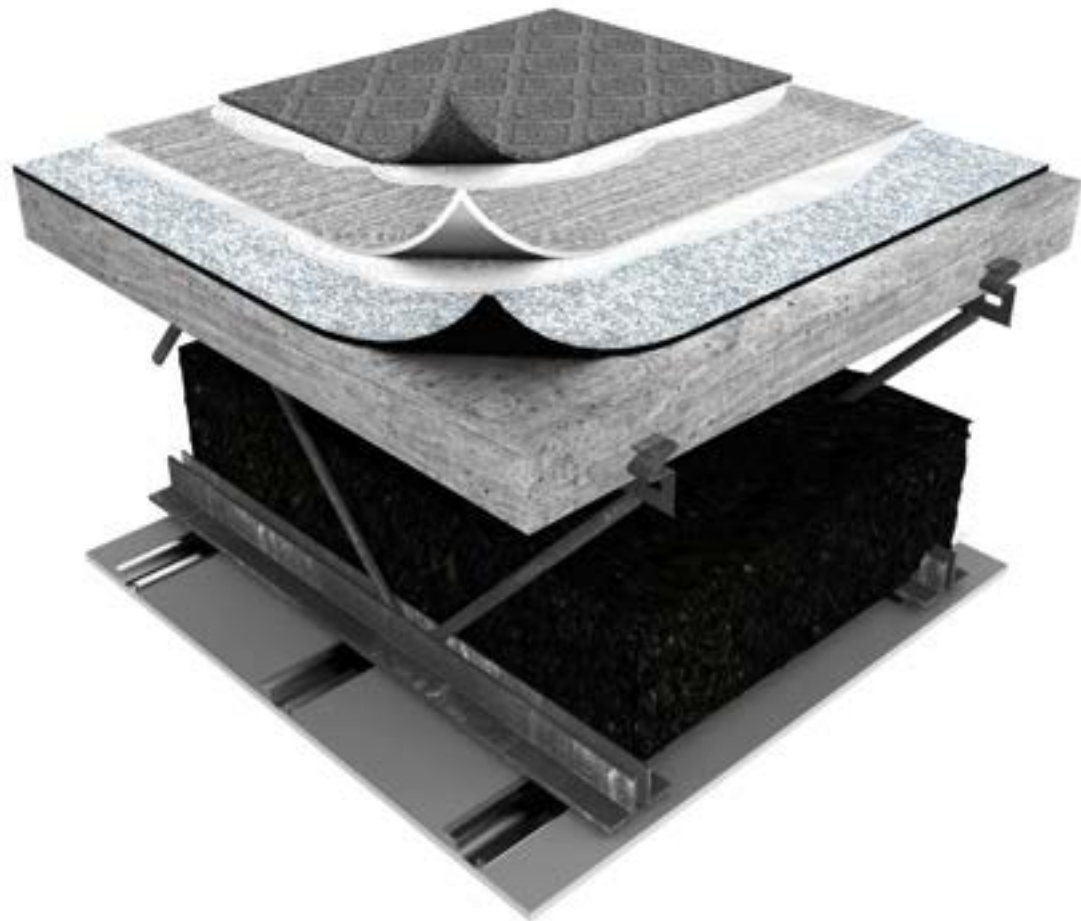
89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	52	43	36	31	30	26	23	26	22	18	15	12	11	9	7	6
IIC	44	44	44	44	44	44	43	42	41	40	39	36	33	30	27	24
Deviation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Carpet  
RESISTOSOUND Acoustiboard  
AcoustiTECH 5000

AIIC 69



**Project : Renaissance (Hambro D-500)**

**Test : Test 029 - Resistosound Acoustiboard + AcoustiTECH TECH 5000 + Jute Carpet**

**Description :**

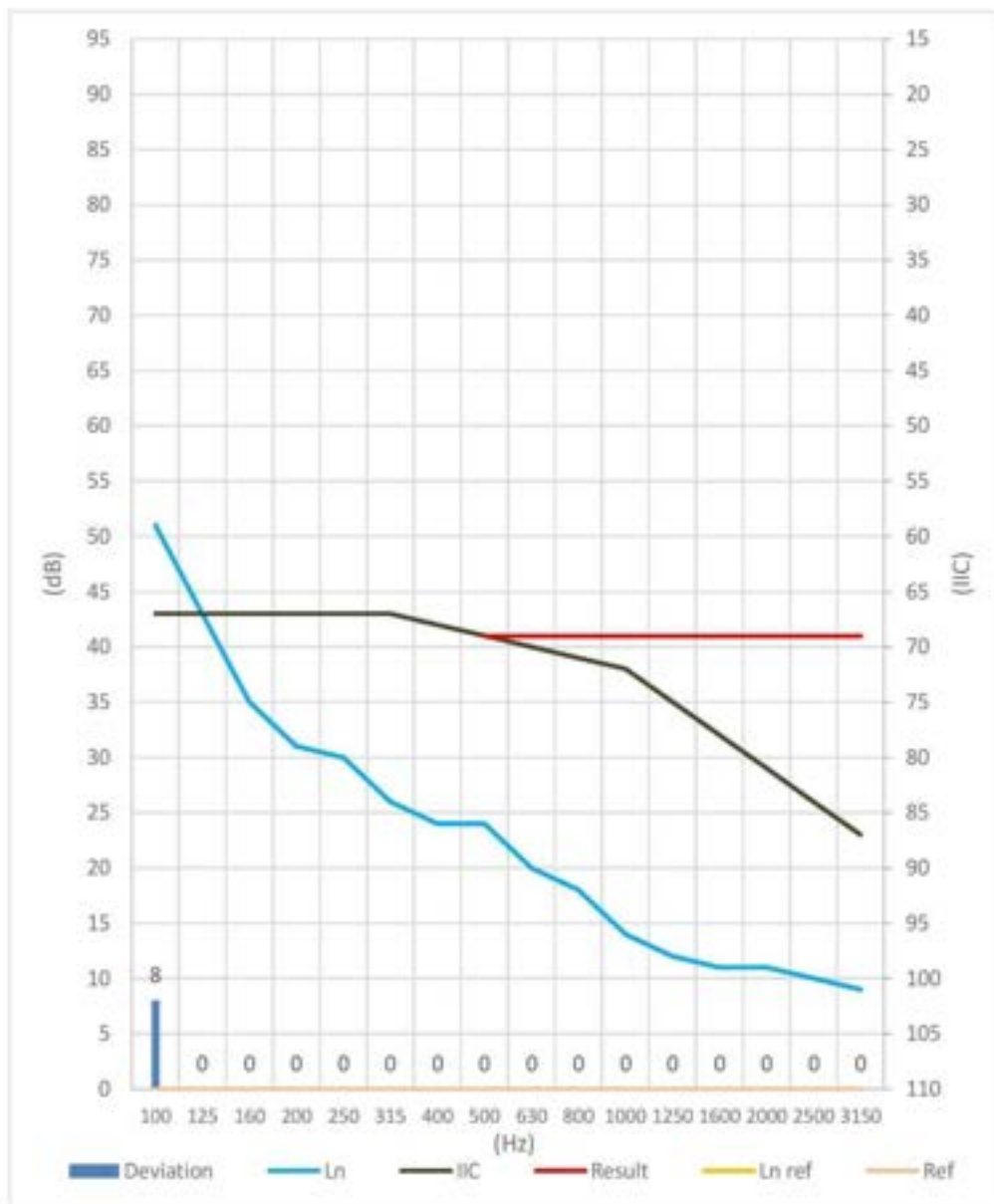
Emitting surface (m <sup>2</sup> )	16,4
Emitting volume (m <sup>3</sup> )	40
Tested surface (m <sup>2</sup> )	2,5
Receiving surface (m <sup>2</sup> )	16,4
Receiving volume (m <sup>3</sup> )	40

**Results :**

<b>AIRC</b>	<b>69</b>
Defavorable deviations	8

**Assembling schema**

89mm Concrete Slab  
350mm Joists @ 1250mm o.c.  
89mm Batt Insulation (Fiberglass)  
Metal furrings 22mm @ 400mm o.c.  
5/8" Gypsum board



Hz	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150
Ln	51	43	35	31	30	26	24	24	20	18	14	12	11	11	10	9
IIC	43	43	43	43	43	43	42	41	40	39	38	35	32	29	26	23
Deviation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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