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Laboratory Standards and Certifications

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BEL

Mr. Upendra R. Oza
STANDARD CARPETS IND LLC
Industrial Area no.1 PO Box 27977
AE- SHARJAH
VERENIGDE ARABISCHE EMIRATEN

your delivery of	your reference	our reference	date
2009-05-12		PW/5484	Zwijnaarde, 2009-06-11

Analysis Report 68886

Required tests :

Determination of the electrical resistance
Assessment of static electrical propensity - walking test
Determination of sound absorption
Determination of impact sound insulation
Determination of thermal resistance by the guarded hot plate apparatus

Identification number	Information given by the client	Date of receipt
T905007	FRS Loop Pile Polypropylene Carpet Tile (Tetris)	2009-05-12

Petra Wittevrongel
order responsible

For further information, please contact our sectorial adviser Jo Wynendaele

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Analysis Report 68886

our reference	date	page
PW/5484	2009-06-11	2 / 6

Reference : **T905007 - FRS Loop Pile Polypropylene Carpet Tile (Tetris)**

Determination of the electrical resistance

1. Method:

Applied standard	: ISO 10965 (year: 1998)
Deviations of the standard	: -
Testing atmosphere	: 23°C and 25 % relative humidity
Applied voltage	: 500 Volt
Number of specimens	: 3
Number of measurements	: 6 (2 measurements per specimen)

2. Results:

Date of ending the test: 25-05-2009

test specimen	surface resistance in Ω	vertical resistance in Ω
1	$1{,}67 \times 10^{12}$	$9{,}43 \times 10^{11}$
2	$5{,}00 \times 10^{12}$	$1{,}35 \times 10^{12}$
3	$5{,}00 \times 10^{12}$	$1{,}28 \times 10^{13}$
4	$3{,}33 \times 10^{12}$	$6{,}58 \times 10^{11}$
5	$4{,}55 \times 10^{12}$	$1{,}28 \times 10^{12}$
6	$2{,}50 \times 10^{12}$	$1{,}25 \times 10^{12}$
geometrical mean value	$3{,}41 \times 10^{12}\ \Omega$	$1{,}61 \times 10^{12}\ \Omega$

Performed in the physical lab under the responsibility of Petra Wittevrongel.

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Analysis Report 68886

our reference	date	page
PW/5484	2009-06-11	3 / 6

Reference : **T905007 - FRS Loop Pile Polypropylene Carpet Tile (Tetris)**

Assessment of static electrical propensity - walking test

1. Method:

Applied standard : ISO 6356 (year: 2000)
method by walking
Deviations of the standard : dimensions of the carpet 200 cm x 100 cm (assembly of 8 pieces of 50 cm x 50 cm)
Atmosphere for conditioning : 23°C and 25% relative humidity
Conditioning time : at least 7 days
Number of measurements : 3

2. Results:

Date of ending the test: 25-05-2009

	body voltage (kVolts)
measurement	with Neolite sole
1	0.0
2	0.1
3	0.2
average	0.1

Performed under accreditation in the physical lab under the responsibility of Philippe Lemaire.

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Analysis Report 68886

our reference	date	page
PW/5484	2009-06-11	4 / 6

Reference : **T905007 - FRS Loop Pile Polypropylene Carpet Tile (Tetris)**

Determination of sound absorption

1. Method:

Performed in the external lab : Schall- und Wärmemeßstelle Aachen GmbH

2. Results:

Date of ending the test : 27-05-2009

See analysis report enclosed.

Centexbel is not responsible for the test results.

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Analysis Report 68886

our reference	date	page
PW/5484	2009-06-11	5 / 6

Reference : **T905007 - FRS Loop Pile Polypropylene Carpet Tile (Tetris)**

Determination of impact sound insulation

1. Method:

Performed in the external lab : Schall- und Wärmemeβstelle Aachen GmbH

2. Results:

Date of ending the test : 27-05-2009

See analysis report enclosed.

Centexbel is not responsible for the test results.

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Analysis Report 68886

our reference	date	page
PW/5484	2009-06-11	6 / 6

Reference : **T905007 - FRS Loop Pile Polypropylene Carpet Tile (Tetris)**

Determination of thermal resistance by the guarded hot plate apparatus

1. Method:

Performed in the external lab : Ghent University, Faculty of Engineering (Department of Textiles)

2. Results:

Date of ending the test : 29-05-2009

See analysis report enclosed.

Centexbel is not responsible for the test results.

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SWA

Schall- und Wärmemeßstelle Aachen GmbH

Institut für schalltechnische und wärmetechnische Prüfungen - Beratung - Planung

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Geschäftsführung:
Dipl.-Ing. Bernd Gebing
Dr.-Ing. Lothar Siebel
Amtsgericht Aachen HRB 2708

Labor: Hauptstr. 133 52 477 Alsdorf

VMPA Schallschutzprüfstelle DIN 4109
Staatlich anerkannte Sachverständige
für den Schall-u. Wärmeschutz IK-Bau NRW

Bankverbindung: Sparkasse Aachen
(BLZ 390 500 00) Kto.-Nr. 11 011 194

27.05.2009

TEST REPORT NO. : CT190509B TS

Impact sound insulation of ISO 140-8 : 1998 - 03

Date of test:	19.05.2009
Customer:	CENTEXBEL
Tested material:	T905007

laid loose on a 140 mm thick reinforced concrete floor slab

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Test results	Enclosure TS
Impact sound insulation of ISO 140-8 : 1998 - 03 Measurement of impact sound insulation by a floor covering - on a solid strings-floor Customer: **CENTEXBEL**	Page 2 of 2

Tested material: **T905007**
Test rooms: 02 u. K2, Hauptstraße 133, 52 477 Alsdorf
Test area: 4,24 m x 4,15 m Test area of slab
Date of test: 19.05.2009

Description of the test material:

Total thickness: **- mm**

Mass / area: **- kg/m²**

laid loose on a 140 mm thick reinforced concrete floor slab

Receiving room:
Volume: 58,9 m³
Temperature: 20 °C
Humidity: 65 %

The results are based on tests, which were effected with on artificial source of sound by labratory conditions.

Frequency Hz	Ln Bare floor dB	ΔL dB
50		4,9
63		2,3
80		1,8
100	61,0	2,5
125	61,4	2,4
160	64,8	4,9
200	63,7	8,0
250	65,4	10,7
315	65,6	16,0
400	66,1	22,4
500	66,0	27,3
630	66,4	29,8
800	66,3	36,4
1000	66,2	43,4
1250	66,6	46,0
1600	67,2	45,3
2000	67,1	47,9
2500	67,0	53,7
3150	66,4	54,2
4000		---
5000		---

Reception filter: third-octave
Calculation according ISO 717-2:

Impact sound improvement index	non rated reduction of impact sound insulation	
ΔL_W = **24 dB**	$\Delta L_{lin} = \Delta L_w + C_{I,\Delta}$	$C_{I,\Delta}$ = -12 dB
(VM = **24 dB**)	ΔL_{lin} = **12 dB**	$C_{I,r}$ = 1 dB
		$C_{I,r,50\text{-}2500}$ = 4 dB

Test report no.: **CT190509B TS**
Aachen 27.05.2009

SWA Schall- und Wärmemeßstelle Aachen GmbH

(Dipl.-Ing. A. Siebel) (Dr.-Ing. L. Siebel)

استاندارد مقاومت حرارتی

Schall- und Wärmemeßstelle Aachen GmbH

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Staatlich anerkannte Sachverständige
für den Schall-u. Wärmeschutz IK-Bau NRW

Bankverbindung: Sparkasse Aachen
(BLZ 390 500 00) Kto.-Nr. 11 011 194

27.05.2009

TEST REPORT NO. : CT190509B SA

Sound absorption of DIN EN ISO 354 : 2003 - 12

Date of test:	19.05.2009
Customer:	CENTEXBEL
Tested material:	T905007
	laid loose on the floor of the reverberation room

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4. Test results	Enclosure SA
Sound absorption DIN EN ISO 354 : 2003 - 12 Measurement of sound absorption in a reverberation room Customer: **CENTEXBEL**	Page 2 of 4

Tested material: **article:** **T905007**
Test room: reverberation room, Hauptstraße 133, 52 477 Alsdorf
Test area: 12,0 m²
Test method: method of reverberation room
Date of test: 19.05.2009

Description of the test material:

Total thickness: **- mm**

Mass / area: **- kg/m²**

laid loose on the floor of the reverberation room

Dimension of the test area:

length: 4,00 m
width: 3,00 m

Reverberation room:

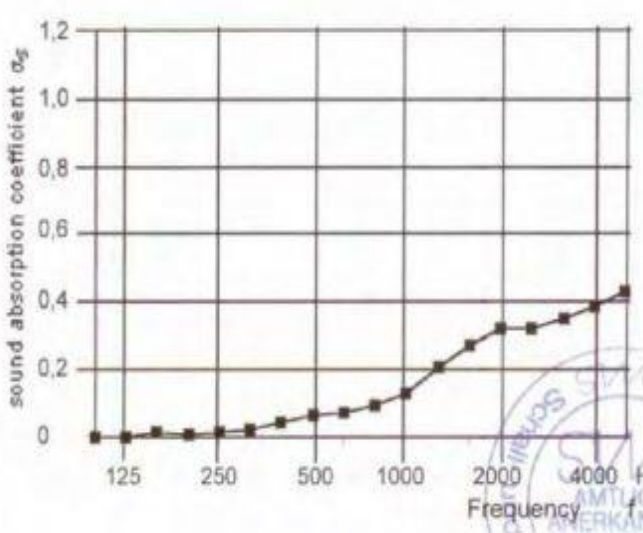
Basic plan: trapezoid
Volume: 211 m³
Temperature: 20 °C
Humidity: 65 %

f / Hz	125	250	500	1000	2000	4000
α_s	**0,00**	**0,01**	**0,06**	**0,13**	**0,32**	**0,39**

Surface areas of reverberation room: 213 m²

Surface areas of reflectors in reverberation room: 54,5 m²

Reflectors:
6 Alu panels of 1,0 m/ 2,0 m
7 Plywood panels of 1,5 m/ 1,3 m
1 Alu panels of 1,8 m/ 0,9 m



Test sound: third-octave noise
Reception filter: third-octave

Test report no.: CT190509B SA Aachen 27.05.2009	SWA Schall- und Wärmemeßstelle Aachen GmbH (Dipl.-Ing. A. Siebel) (Dr.-Ing. L. Siebel)

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4.1 Valuation of test results	Enclosure SA
Soundabsorber for the application in buildings - valuation of sound absorbtion **Sound absorption of DIN EN ISO 11654 : 1997- 07** Customer: **CENTEXBEL**	Page 3 of 4

Tested material: **article:** **T905007**
Test room: reverberation room, Hauptstraße 133, 52 477 Alsdorf
Test area: 12,0 m²
Test method: method of reverberation room
Date of test: 19.05.2009

Description of the test material:
Total thickness: - **mm**
Mass / area: - **kg/m²**
laid loose on the floor of the reverberation room

frequency - range of the "shapeindicators"

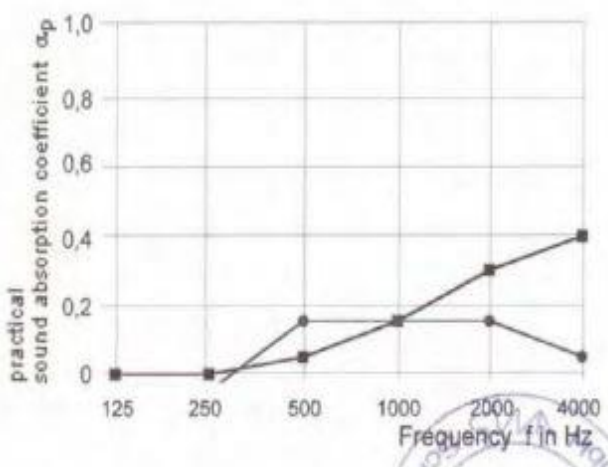
	Frequency in Hz	pactical sound absorption coefficient
	125	0,00
L	250	0,00
M	500	0,05
M	1000	0,15
H	2000	0,30
H	4000	0,40

Results:
Relation - curve:

Reverberation room:
Basic plan: trapezoid
Volume: 211 m³
Temperature: 20 °C
Humidity: 65 %

Surfaces areas of reverberation room: 213 m²

Surfaces areas of reflectors in reverberation room: 54,5 m²



Evaluated sound absorptions grade α_w
α_w : **0,15 (- - H)** *)

*) It is recommended insistently to use this singular valuation with complete curve of sound absorption garde.

Test report no.: **CT190509B SA**	SWA Schall- und Wärmemeßstelle Aachen GmbH
Aachen 27.05.2009	(Dipl.-Ing. A. Siebel) (Dr.-Ing. L. Siebel)

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4.2 Test results	Enclosure SA
Reverberation times Measurement of sound absorption in a reverberation room Customer: **CENTEXBEL**	Page 4 of 4

Tested material: **article:** **T905007**
Test room: reverberation room, Hauptstraße 133, 52 477 Alsdorf
Test area: 12,0 m²
Test method: method of reverberation room
Date of test: 19.05.2009

Description of the test material:
Total thickness: - **mm**
Mass / area: - **kg/m²**

laid loose on the floor of the reverberation room
Dimension of the test area:
length: 4,00 m
width: 3,00 m

Reverberation times:

f / Hz	T1 / s	T2 / s
100	9,96	9,91
125	7,82	7,79
160	6,73	6,48
200	7,29	7,10
250	7,20	6,98
315	6,22	5,95
400	6,57	6,02
500	6,89	6,00
630	6,93	5,87
800	6,55	5,39
1000	6,48	5,00
1250	6,31	4,34
1600	5,93	3,79
2000	5,42	3,38
2500	4,65	3,05
3150	3,99	2,68
4000	3,24	2,26
5000	2,59	1,86

SWA Schall- und Wärmemeßstelle Aachen GmbH
SWA AMTLICH ANERKANNTE PRÜFSTELLE

Number of loudspeaker positions: 2 Test sound: third-octave noise
Number of microphone positions: 2 x 6 Reception filter: third-octave

Test report no.: **CT190509B SA**	SWA Schall- und Wärmemeßstelle Aachen GmbH
Aachen 27.05.2009	

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contact	e-mail	date
Didier Van Daele	didier.vandaele@UGent.be	29/05/2009

TEST REPORT 09-297 B

Samples received :

Order 7489: T905007
Received on 12/05/09

Aim of the test :

determination of applicability with floorheating

Test conditions :

Applicability with floorheating by means of TECOSY : one plate method

Standard:	DIN 52 612 part 1 (1979)* in accordance with ISO 8302 (1991)*
Method:	A sample is placed between a cold and a warm plate. The cold and the warm plate are kept at the same temperature. The quantity of energy needed to keep the warm and cold plate on temperature, is an indication for the heat transmission of the sample.
Number of tests:	2 samples (3 measurements per sample)
Test conditions:	20 ± 2°C and 65 ± 4 % relative humidity

The tests were ended in week 22/2009

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via certification

your delivery of	your reference	our reference	date
2008-01-17	ECA 163	WVW/647	Zwijnaarde, 2008-01-24

Analysis Report 60898/B

Required tests :

Determination of thermal resistance by the guarded hot plate apparatus

Identification number	Information given by the client	Date of receipt
T800183	Nylon	2008-01-07

Willy Vande Wiele
order responsible

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Montoyerstraat 24 B2
BE-1000 Brussels
Tel. + 32 2 287 08 30 • Fax + 32 2 230 68 15

Reference : T800183 - Nylon

Determination of thermal resistance by the guarded hot plate apparatus

1. Method:

Applied standard	: DIN 52 612 Part 1 (year: 1979) on conditioned material (20°C and 65% rel. humidity)
Deviations of the standard	: -
Apparatus	: one hot plate apparatus TECOSY
Number of tests	: 2 (3 measurements per sample)
Performed in the external lab	: Ugent, Faculteit Ingenieurswetenschappen, Vakgroep Textielkunde

2. Results:

Date of ending the test: 22-01-2008

temperature °C	difference in temperature	thermal resistance R (in m².K/W)
25°C / 35°C	10°C	0,0487
30°C / 40°C	10°C	0,0475
35°C / 45°C	10°C	0,0475
average	-	0,0479 m².K/W

Performed in the external lab

استانداردمقاومت حرارتی

استانداردمقاومت حرارتی ایزو ۸۳۰۹

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Standard Carpets ind llc
Mr. Titus Pak
Industrial Area no.1 PO Box 27977
SHARJAH
Verenigde Arabische Emiraten

ISO 17025 BELAC 056-TEST

Your notice of	Your reference	Date
23-10-2015		04-12-2015

Analysis Report 15.05097.01

Required tests :

ISO 105-X12 (2001)	Determination of the colour fastness to rubbing
ISO 105-B02 (2014)	Determination of the colour fastness to light - floor covering
ISO 105-E01 (2013)	Determination of the colour fastness to water
ISO 1765 (1986)	Determination of the total thickness of floor coverings
ISO 1766 (1999)	Determination of surface pile thickness of textile floor coverings
ISO 8543 (1998)	Determination of the total mass per unit area of textile floor coverings
ISO 8543 (1998)	Determination of the surface pile mass per unit area of textile floor coverings
ISO 1763 (1986)	Determination of number of tufts or loops per unit length and per unit area
ISO 10361-MethodeB (2015)	Determination of changes in appearance of textile floor coverings using the Hexapod drum
EN 1963 - Method A (2007)	Determination of mass loss of textile floor coverings using the Lisson Tretrad Machine
ISO 8302 (1991)	Determination of the thermal conductivity - Hot plate

Identification number	Information given by the client	Date of receipt
T1517975	PANTHER	23-10-2015

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استانداردمقاومت حرارتی

استانداردمقاومت حرارتی ایزو ۸۳۰۹

Kristina De Temmerman

Order responsible

The results of the analysis cover the received samples. Centexbel is not responsible for the representativeness of the samples.
In assessing compliance with the specifications, we did not take into account the uncertainty on the test results.

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Reference: **T1517975r - PANTHER**

Determination of the thermal conductivity - Hot plate

Standard used	ISO 8302 (1991)
Performed in an external lab	Universiteit Gent, Faculteit Ingenieurswetenschappen en Architectuur, Vakgroep Textielkunde
Annex 2	Report 15-1031.pdf

Centexbel is not responsible for the test results

Performed in an external lab

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Summary of test report 15.05097.01 dd 4/12/2015

EN 1307: 2014

Identification, basic information and use classification			
Product identity	PANTHER	Date (dd.mm.yyyy)	4.12.2015
Manufacturer/applicant	Standard Carpets ind Ilc	Type of surface	Cut pile
Type of manufacture	Tufted	Secondary backing	Woven textile backing + fleece
Carpet type	Pile carpets except needled pile carpets		
Basic requirements	Pass	Dimensions	Wall-to-wall
Primary Backing	Woven fabric	Yarn type	BCF
Colouring	Plain		
Pile fibre composition	100% polyester		
Total thickness (mm)	11.6	Surface pile thickness (mm)	8.6
Total carpet mass (g/m²)	2625	Surface pile mass (g/m²) [a]	1368
Surface pile density (g/cm³) [a]	0.159	Number of tufts per dm²	1680
Surface treatment for antistatic characteristics	no	Hairiness (type B1)	
Drum test Vetterman short-term [b]	2.5	Drum test Vetterman long-term [b]	1.5
Drum test Hexapod short-term [b]		Drum test Hexapod long-term [b]	
Test done on underlay	no	Abrasion resistance m_2/m_1 [d]	
Appearance retention class	21	General structural integrity [d]	
Change in colour [c]			
Peel resistance [c]		Water impermeability [e]	
Abrasion resistance blade test [e]		Dimensional stability (loose laid only)	
Overall use class	**21**	**Luxury class**	**LC5**
Additional characteristics if applicable			
Castor chair suitability		Stair suitability	
Thermal resistance (m².K/W)	0.156	Impact sound insulation (ΔL_w)	
Body voltage walking test (kV)		Sound absorption α_w	
Vertical resistance (Ω)		Static dissipative floor covering	
Horizontal resistance (Ω)		Conductive floor covering	
Incidental humid conditions suitability		Resistance to fraying	
Specific information carpet tiles			
Type of tile		Basic requirements Annex A	
Non adhered/loose laid		Dimensions of the tile (cm)	
Adhered removable		Total mass individual tile (kg)	
For permanent bonding		Total mass per unit area (kg/m²)	

[a] Applicable for carpets with pile and needled carpets type B1, B2 and B3
[b] Applicable for carpets with pile, carpets without pile and needled carpets types B1, B2 and B3
[c] Applicable for needled carpets types A1, A2 and A3
[d] Applicable for carpets without pile and needled carpets types A1, A2, A3, B1, B2 and B3
[e] Applicable for flocked carpets

ir Petra Witteyrongel
product certifier

استانداردمقاومت حرارتی

استانداردمقاومت حرارتی ایزو ۸۳۰۹