Prüfbericht - Nr.: *Test Report No.:*	**IND/BLR/CH/2018/8376**	**Seite 1 von 4** *Page 1 of 4*

Auftraggeber: *Client:*	**SUNFLEX RECYCLING PVT.LTD** 274/4, Opp.Gujarat High Court, S G HIGHWAY SOLA AHMEDABAD, GUJARAT 380060
Gegenstand der Prüfung: *Test item:*	Rubber Flooring tiles-50mm

Bezeichnung: *Identification:*	-	**Serine-Nr.:** *Serial No./* Document Submitted*:*	Email Date: 13.11.2018
Wareneingangs-Nr.: *Receipt No.:*	13112018	**Eingangsdatum:** *Date of receipt:*	13.11.2018
Order No.:	1803367943	*Testing Period:*	15.11.2018 to 15.11.2018

Prüfort: *Testing location:*	TÜV Rheinland India Pvt Ltd, Plot No.27B, 2nd Cross Road, Electronic City Phase I, Bangalore - 560 100, Karnataka, India
Prüfgrundlage: *Test specification:*	Customer's requirement : Sound Absorption Coefficients
Prüfergebnis: *Test Result:*	Refer pages 2 to 4

Prüflaboratorium/ Testing Laboratory:

zusammengestellt/ *compiled by*:		**kontrolliert/** *checked by:*	
03.12.2018	Ranabir Pal Manager - Polymer Section, Material Testing Laboratories, Industry Services	03.12.2018	Rajesh Jain B Technical Head, Material Testing Laboratories, Industry Services

Datum *Date*	**Name** *Name*	**Unterschrift** *Signature*	**Datum** *Date*	**Name** *Name*	**Unterschrift** *Signature*

Sonstiges/ Other Aspects: Nil

Abkürzungen:	***ok / P***	***= entspricht Prüfgrundlage***	***Abbreviations:***	***ok / P***	***= passed***
	fail / F	***= entspricht nicht Prüfgrundlage***		***fail / F***	***= failed***
	n.a. / N	***= nicht anwendbar***		***n.a. / N***	***= not applicable***

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

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INTERIM TEST RESULTS

Test Name: Sound Absorption Coefficients

Test Method: ASTM C 423

Test Component Details:
Flooring tiles of 50 mm thickness and 880 kg/m^3 density
Size of panel- 500 mm X 500 mm, total 20 tiles used for mounting
Area of test sample- 2.5 m X 2 m
Type of mounting- Type A mounting

Test Procedure:
1. The random incidence sound absorption measurement was carried out on flooring tiles of 50 mm thickness as per ASTM C-423 / ISO 354 in reverberation chamber.
2. The test sample was directly pasted on the floor with type A mounting.
3. The measurement was carried out at temperature 25 ± 1 °C and Humidity 45 %.

Test Apparatus:

Sr. No.	Instrument Name	Type / Model No.	Make	Calibrated on	Calibration due on
1	Multi-channel Data Acquisition System	3560D	Bruel & Kjaer, Denmark	12-Jun-2018	12-Jun-2019
2	½" Random Incidence	378B20 (Sr. No. 109015)	PCB, USA	12-Jun-2018	12-Jun-2019
3	Power Amplifier	2716	Bruel & Kjaer, Denmark	Does not require separate calibration as it is driven by data acquisition system	
4	Omni directionnel sound source	Omni power 4296	Bruel & Kjaer, Denmark		
5	Reverberation room	80 m^3 and 110 m^3	-	-	-

Observation:

Table 1 and Figure 1: Values and Plot for Random incidence sound absorption coefficient of flooring tiles of 50 mm thickness and 880 kg/m³ density at one third octave frequencies

One third octave frequency, Hz	Random Incidence Sound Absorption Coefficient	Standard Deviation
100	0.07	0.01
125	0.08	0.01
160	0.07	0.01
200	0.23	0.02
250	0.29	0.02
315	0.33	0.02
400	0.48	0.02
500	0.53	0.04
630	0.54	0.01
800	0.50	0.00
1000	0.46	0.00
1250	0.46	0.01
1600	0.50	0.00
2000	0.53	0.01
2500	0.52	0.00
3150	0.53	0.00
4000	0.56	0.00
5000	0.58	0.01

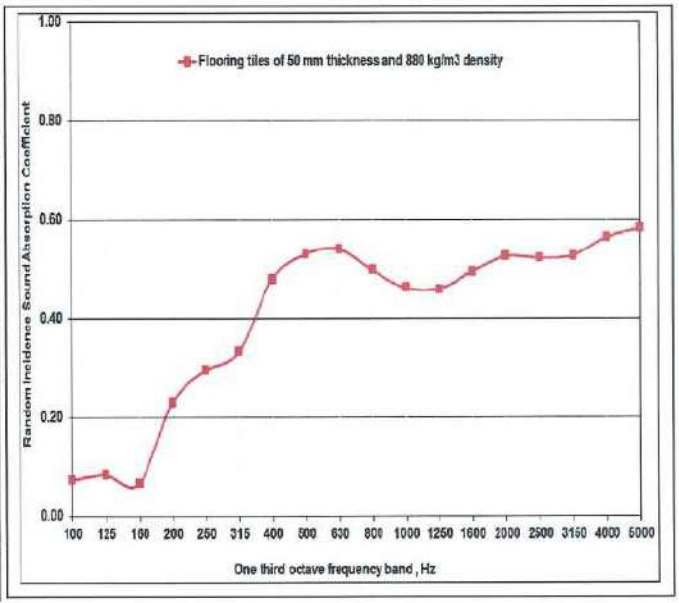

Table 2 and Figure 2: Values and plot for total sound absorption of flooring tiles of 50 mm thickness and 880 kg/m³ density at one third octave frequencies

One third octave frequency, Hz	Random Incidence Sound Absorption Coefficient	Standard Deviation
100	0.37	0.03
125	0.42	0.06
160	0.33	0.07
200	1.15	0.09
250	1.47	0.10
315	1.66	0.10
400	2.40	0.11
500	2.65	0.18
630	2.70	0.04
800	2.49	0.02
1000	2.31	0.02
1250	2.30	0.07
1600	2.48	0.02
2000	2.63	0.03
2500	2.61	0.01
3150	2.64	0.02
4000	2.82	0.01
5000	2.91	0.04

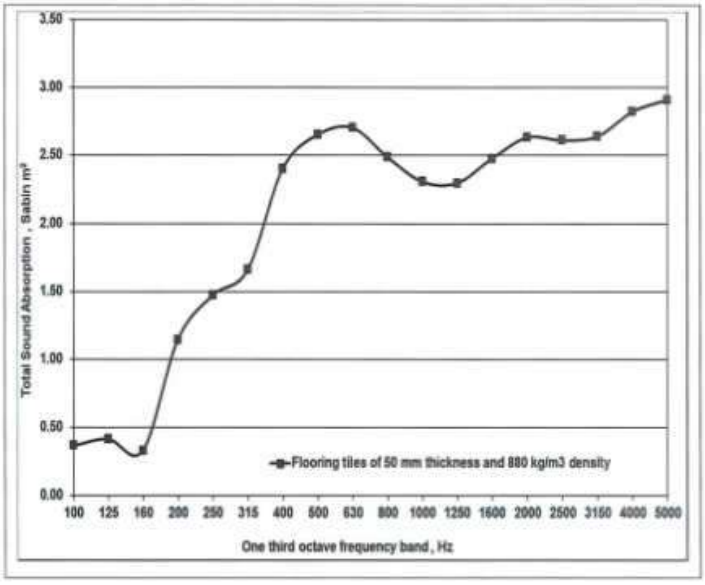

Table 1 and figure 1 shows the average values and plot for random incidence sound absorption coefficient of flooring tiles of 50 mm thickness and 880 kg/m^3 density in the frequency range of 100 Hz to 5000 Hz.

Table 2 and figure 2 shows the average values and plot for total sound absorption of flooring tiles of 50 mm thickness and 880 kg/m^3 density in the frequency range of 100 Hz to 5000 Hz.

The Noise Reduction Coefficient (NRC) is given by the average value of sound absorption coefficient at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz is calculated as per ASTM C-423.

The weighted sound absorption coefficient (α_w) and sound absorption class are calculated as per ISO 11654 are given below

Flooring tiles of 50 mm thickness and 880 kg/m^3 density	
Noise Reduction Coefficient (NRC)	0.45
Weighted Sound Absorption Coefficient (α_w)	0.50
Sound Absorption Class	Class D

--- End of Report ----