TFI Report 491510-04

Thermal Resistance

Customer

ADOPEN PLASTIK VE INSAAT SAN.
Antalya organize sanayi bögesi 2. kisim
Mah. 21. Cad. N:3
Dösemealti/Antalya
TURKEY

Product

resilient floor covering
ADOFLOOR SPC Vinyl Product 4 mm

This report includes 2 pages and 1 annex

Responsible at TFI

-Test Engineer-
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Aachen, 21.01.2020

Dr.-Ing. Bayram Aslan

The present document is provided with an advanced electronic signature

1 Transaction

Test order	thermal resistance according to EN 12664
Order date	22.11.2019
Your reference	Ismail Baysal
Sampling performed by	Customer
Product designation	ADOFLOOR SPC Vinyl Product 4 mm
TFI sample number	19-11-0169

2 Product Specification

Construction	heterogeneous
Structure	embossed
Pattern	multicoloured, patterned
Colour of the use surface	grey
View	
Thickness of wear layer [mm]	0,55*
Thickness [mm]	4,55*
Area density [g/m²]	7547*
Type of delivery	modules
	*customer information

3 Results

Thermal resistance	R_{10} = 0,0177 [m²K/W]
	R_{23} = 0,0166 [m²K/W]

4 Annexes

Thermal resistance	WD 491510-04[a]

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

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Annex WD - Thermal Resistance

1 Transaction

Product designation	ADOFLOOR SPC Vinyl Product 4 mm	
TFI sample number	19-11-0169	
Testing period	05.12.2019	(at least 120 min in steady state per measurement series)

2 Test Method / Requirements

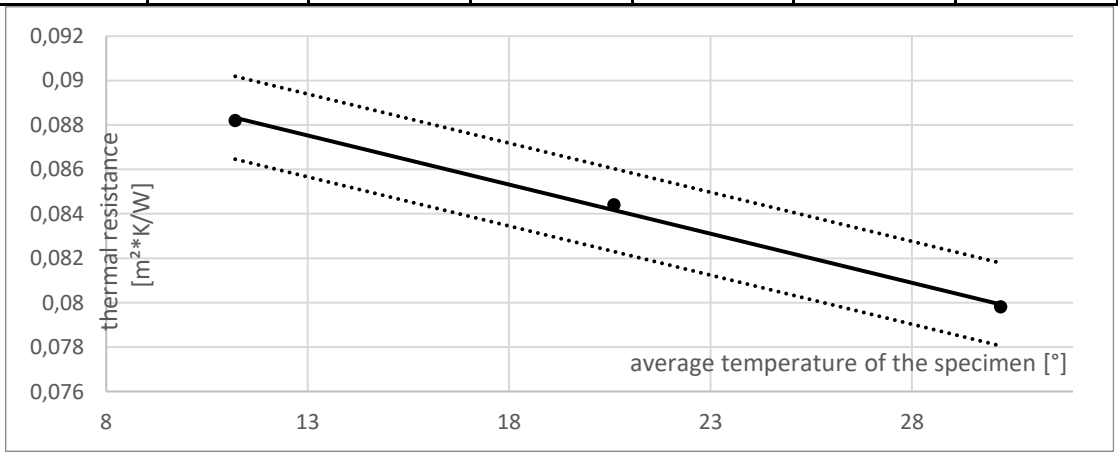
Test method	EN 12664:2001 determination of thermal resistance Test with guarded hot plate method according to ISO 8302: 1991
Test device	One-specimen apparatus, horizontal, warm side up Protective heating ring and sample protection ring to reduce heat loss on the edges.
Conditioning	according EN ISO 291:2008 (23°C +/- 2°C und 50% +/- 5% rel. Luftfeuchte)

3 Sample Installation

Thickness built-in [m]	0,02229	(Measured when installed)
built-in layers	5	

4 Results

Test	heating capacity [W]	Heat flux [W/m²]	temperature of the cold surface of the specimen [°C]	temperature of the warm surface of the specimen [°C]	temperature difference [K]	average temperature of the specimen [°]	thermal resistance [m²*K/W]
1	6,320	101,12	6,7	15,7	8,9	11,2	0,08821
2	6,540	104,64	16,2	25,0	8,8	20,6	0,08440
3	6,810	108,96	25,9	34,6	8,7	30,2	0,07981



Deviations The mass change during conditioning and during the measurement was not determined.

Comments: The largest expected measurement deviation is +/- 2%.

Calculated thermal resistance for one layer at a mean temperature of 10 °C

$R_{10=}$ 0,01777 $\frac{m^2K}{W}$ +/- 0,00036 $\frac{m^2K}{W}$

Calculated thermal resistance for one layer at a mean temperature of 23 °C
EN 14041:2018-05

$R_{23=}$ 0,01662 $\frac{m^2K}{W}$ +/- 0,00033 $\frac{m^2K}{W}$

Calculated thermal resistance for one layer at a mean temperature of 24 °C
DIN EN 16354:2019-01

$R_{24=}$ 0,01653 $\frac{m^2K}{W}$ +/- 0,00033 $\frac{m^2K}{W}$

Thermal conductivity at 10°C

$\lambda_{10=}$ 0,25040 $\frac{W}{mK}$ +/- 0,00501 $\frac{W}{mK}$