



Thermal Conductivity according to EN 12664

Test report No: F.2-29a/15

Applicant: Thermaflex International Holding B.V., 5145 NS Waalwijk, Niederlande
Name of the product: " ThermaSmart Sheet "
Product identification: Sheet made of polyethylene foam (PEF) according to EN 14313:2009+A1:2013
 (as given by applicant) Nominal Thickness: 25 mm
 Colour: black
 Production day: October 2014

Sampling: By FIW München at the plant in Waalwijk on 12.11.2014.
Goods Receipt: No. 68 dated 18.11.2014

Test equipment: Guarded hot plate apparatus according to EN 12664:
 Metering section 400 x 400 mm with guard section 800 x 800 mm

Preparation: Tested thickness^{*)}: 0.0280 m Mass^{*)}: 0.2680 kg
 Surface area tested: 0.2500 m² Density^{*)}: 38.3 kg/m³

Remarks: The test specimens were built into the test apparatus without further conditioning.

Experimental data:

Test No	Heat flow rate W	Temperature of the		Average temperature of the specimen °C	Temperature-difference of the specimen K	Thermal Conductivity W/(m·K)
		Warm Side °C	Cold Side °C			
1	5.352	-21.3	-36.2	-28.8	14.9	0.0315
2	5.330	-2.2	-16.3	-9.3	14.1	0.0333
3	5.309	31.6	18.7	25.2	12.9	0.0360
4	5.308	65.6	54.0	59.8	11.6	0.0402
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Uncertainty: < 2%

Properties of the material after conductivity-measurement up to 65.6 °C warm side: *) Mean values (two specimens)
 Thickness^{*)}: 0.0280 m Mass^{*)}: 0.2680 kg
 Density^{*)}: 38.3 kg/m³ Change in mass: 0.0 %

Remarks: --

Results:

Mean temperature °C	-30	-20	-10	0	10	20	40	50	60
Thermal conductivity W/(m·K)	0.0312	0.0322	0.0332	0.0341	0.0351	0.0360	0.0380	0.0389	0.0399

Evaluation: These thermal conductivity values refer to the material in a dry state and represent thermal conductivity values $\lambda_{Lab,P}$ as specified in the guidelines VDI 2055.

Final remarks: -----



Gräfelfing, 22.01.15

Department Specialist

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Tester

A. Bergler

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