Thermal Conductivity according to EN 12667

Test report No: F.2-192a/09

Product identification: (as given by applicant)	Aerogel blanket material Nominal thickness: 10 mm Colour: white
Sampling: Goods Receipt:	Sent by applicant on February 2009 No. 710 dated 09.02.2009
Test equipment:	Guarded hot plate apparatus according to EN 12667: Metering section 300 x 300 mm with guard section 500 x 500 mm
Preparation:	Tested thickness[+)]: 0.0083 m Mass[+)]: 0.2960 kg Surface area tested: 0.2510 m² Density[+)]: 142 kg/m³
Remarks:	The two test specimens were built into the test apparatus without further conditioning.

Experimental data:

Test	Heat flow rate	Temperature of the Warm Side	Temperature of the Cold Side	Average temperature of the specimen	Temperature-difference of the specimen	Thermal Conductivity
No	W	°C	°C	°C	K	W/(m·K)
1	4.532	19.1	3.4	11.3	15.7	0.0131
2	4.532	33.1	17.8	25.4	15.3	0.0134
3	4.532	45.2	30.2	37.7	15.0	0.0137
4	-----	-----	-----	-----	-----	-----
5	-----	-----	-----	-----	-----	-----
Uncertainty: < 3%						

Properties of the material after conductivity-measurement up to 45.2 °C warm side:

[+)] Mean values (two specimens)

Thickness[+)]: 0.0083 m Mass[+)]: 0.2960 kg
Density[+)]: 142 kg/m³ Change in mass: 0.0 %

Remarks: --

Results:

Mean temperature °C	**10**	---	---	---	---	---	---	---	---
Thermal conductivity W/(m·K)	**0.0131**	---	---	---	---	---	---	---	---

Evaluation: These thermal conductivity values are material values applicable to material in a dry state. They don't represent design values of thermal conductivity.

Final remarks: --------

Gräfelfing, 25.02.09

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