

Thermal Conductivity according to EN 12667

Test report No: F.2-1506b/08

Applicant: ARMACELL GMBH, 48153 Münster
Name of the product: " NH/ARMAFLEX "
Product identification: Sheets of high flexible closed celled foam on the basis of synthetic rubber.
 (as given by applicant) Thickness: 21 mm
 Colour: grey
Sampling: Shipped by applicant in October 2008.
Goods Receipt: No. 303 dated 24.10.2008
Test equipment: Guarded hot plate apparatus according to EN 12667:
 Metering section 400 x 400 mm with guard section 800 x 800 mm
Preparation: Tested thickness^{+):} 0.0210 m Mass^{+):} 0.3200 kg
 Surface area tested: 0.2500 m² Density^{+):} 61.0 kg/m³
Remarks: The 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	10.250	12.5	-5.1	3.7	17.6	0.0393
2	9.794	31.6	16.0	23.8	15.6	0.0414
3	9.763	45.3	30.0	37.7	15.3	0.0427
4	----	----	----	----	----	----
5	----	----	----	----	----	----

Uncertainty: < 2%

Properties of the material after conductivity-measurement up to 45.3 °C warm side:

^{+) Mean values (two specimens)}

Thickness^{+):} 0.0210 m Mass^{+):} 0.3200 kg
 Density^{+):} 61.0 kg/m³ Change in mass: 0.0 %

Remarks: --

Results:

Mean temperature °C	0	10	20	30	40	---	---	---	---
Thermal conductivity W/(m·K)	0.039	0.040	0.041	0.042	0.043	---	---	---	---

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

Final remarks: -----

Gräfelfing, 03.02.09

Department Specialist

Dipl.-Ing. R. Alberti



Tester

A. Bergler

The only valid document is the one in German and not this translation. Test results only refer to test objects. The prior written consent of our Institute is required for any publication or reference concerning parts of this report.