

Thermal Conductivity according to EN ISO 8497:1996

Test report No: G2-19-1655-02.01
(replaces test report No.: G2-19-1655-02)

Applicant: ROLS ISOMARKET, 127015 MOSCOW, Russian Federation
Manufacturing plant: ROLS ISOMARKET, 127015 MOSCOW, Russian Federation
Name of product: GOST R 56729-2015 tube Energoflex Black Star 15/6
Declared values: Inner diameter: --- Thickness: --- Length: ---
Description: Heat-insulating tube made of foamed polyethylene according to EN 14313:2009+A1:2013
(as given by applicant)
Sampling: Sent by applicant
Sample receipt: WE19-5141 on Nov 07, 2019 (internal no. ENT)
Test equipment: Testing apparatus with calculated pipe ends according to EN ISO 8497:1996 in atmospheric air
 Diameter 16.9 mm, length 2000 mm, horizontal
Mounting: Inner diameter: 16.9 mm Thickness of insulation: 5.8 mm Length: 2275 mm
(acc. to DIN 4140:2014) Density: *) 27.7 kg/m³ Mass: 0.026 kg
 Start of testing: Nov 26, 2019
Remark: The Tube is installed in state of delivery on the test pipe.
 Cell gas content before measurement: 100 vol.-% air.
Measured values: Test protocol No.: G2-19-1655:0001:ENT

Test No.	Heat flow W	Temperature of the		Temperature-difference of the specimen K	Mean temperature of the specimen °C	Thermal conductivity W/(m·K)
		Warm side °C	Cold side °C			
01	16.6	17.5	-0.4	17.9	8.6	0.0386
02	16.6	43.1	26.8	16.3	34.9	0.0424
03	16.6	59.0	43.6	15.3	51.3	0.0449

Uncertainty: < 3 % Thermal conductivity at a given temperature difference on the specimen

Dismounting: Properties of the material after measurement up to 59.0 °C warm side temperature:
 Density: *) 27.7 kg/m³ Mass: 0.026 kg Change in mass: 0.0 %
 End of testing: Nov 28, 2019

Remark: ---

*) The given values of density refer to the insulation of the mounted specimens without coating/facing.

Evaluation:

Polynomial: $\lambda(\vartheta_m) = + 3.7383E-02 + 1.3500E-04 \cdot \vartheta_m + 2.4149E-07 \cdot \vartheta_m^2$

Mean temperature ϑ_m in °C	0	10	20	30	40	---	---	---	---	---
Thermal conductivity λ in W/(m·K)	0.0374	0.0388	0.0402	0.0417	0.0432	---	---	---	---	---

These thermal conductivity values refer to the material in a dry state under the given experimental conditions at the time of the measurement and are related to the mean temperature of the specimen.

Remark: ---

Gräfelfing, Dec 12, 2019

Department Specialist:

Tester:

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 Dipl.-Ing. K. Wiesemeyer



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Results relate only to the items tested.

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