

Test Report

IZOTERMS Ø 60,3/125 mm - BASF H2130/83

Test Report No.: V352/17.1



4 Testing procedure and results - Thermal conductivity (unaged condition)

The determination of thermal conductivity (unaged condition) at the preinsulated pipe Ø 60,3/125 mm was carried out based on EN 253:2015 and ISO 8497.

Test equipment: Test-equipment for determination of thermal conductivity on pre-insulated pipes according to EN 253:2015, Annex F
Manufacturer: IMA Dresden / PMK B98-B2

Temperature measurement: 2 x 6 thermocouples

End apparatus: calibrated endcaps; correction according to van Rinsum

Steel service pipe: $D_{S1} = 54,27$ mm, $D_{S2} = 60,32$ mm, $T = 3,02$ mm

Thermal insulation: PUR foam, BASF H2130/83

PE- Casing pipe: $D_{C3} = 118,68$ mm, $D_{C4} = 125,31$ mm; $e_{PE} = 3,32$ mm

Number of measurements: 3

Technician: Mr. Lehmann

Table 4-1 Test results – Thermal conductivity (unaged condition)

Heat flow - rate ϕ [W]	Temperature hot cold sample surface		Difference in temperature sample surface $\bar{T}_1 - \bar{T}_4$ [K]	Mean temperature of sample T_m [°C]	Thermal conductivity of PUR-foam λ_{PUR} [W/(m·K)]
	\bar{T}_1 [°C]	\bar{T}_4 [°C]			
20,45	71,89	26,54	45,35	49,32	0,0235
20,99	72,74	26,78	45,96	49,87	0,0238
21,85	74,08	26,90	47,18	50,61	0,0241
$\lambda_{50} = 0,0238$ W/(m·K)					

5 Summary

The test results documented in this test report verify that the tested characteristic thermal conductivity (unaged condition) of the preinsulated pipe Ø 60,3/125 mm with PUR rigid foam system BASF H2130/83 meet the requirements of DIN EN 253:2015-12.

Reviewed

Created

Dipl.-Ing. Heiko Below
Laboratory for Pipe Systems

Dipl.-Ing. Matthias Thöler
Person in Charge