

Audit test report

Plastics piping systems for (surface) heating



Test report No. LC 21353

Certificate 3V400

Date of report 24-05-2022

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Requested by Ms Y. van Golstein

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Performed request Audit Test Homogeneity in accordance with DINCERTCO certification scheme 2019-03

Reference document(s) DIN 4726:2017-10 Warm water surface heating systems and radiator connecting systems –Plastics piping systems and multilayer piping systems

Tested product(s) PE-RT Heizungsrohr DN 18 x 2,0

Conclusion(s)* The products investigated meet the requirements for all tested and evaluated aspects as detailed in this report.

Responsible for testing

Mr A.J. Rikers, Coordinator Lab C



- International accredited testing laboratory in accordance with EN ISO/IEC 17025, for the scope see www.rva.nl
- This report may only be duplicated as a complete set, without any modifications and with permission of the legitimate owner.
- The test results in this report are exclusively related to the samples offered and tested.
- With regard information about measurement uncertainty please check our website.
- In case of dispute regarding this test report please contact Kiwa Nederland B.V.

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Sample description

Pipe(s) :

Manufacturer : ClouSet
Production location : D-70771 Leinfelden-Echterdingen Germany
Type of material : PE-RT, pipe

Nominal dimensions : 18 × 2,0 mm
SDR class : Not specified
Design pressure : Not specified
Marking : ISO 24033/22391/21003 ISO KL. 4/5 6bar DIN Certco 3V400 PE-RT
MADE IN GERMANY 14102022102272730e ← 200 Meter →
Date of production : 14-10-2021
Other aspects : Inspector code: ek22

Appearance

Colour inside/outside : Natural/Grey
Surface : Smooth
Defects/damage : None
Discolorations : None
Remarks : None

Sampling information

Sampled by : Mr E. Kruse
Date of sampling : 12-04-2022
Received at Kiwa lab : 19-04-2022
Registered by : Mr M. Ferfers

Audit test report*Plastics piping systems for (surface) heating***Homogeneity of the polymer layers****Test Method**

DIN 4726:2017-10

Warm water surface heating systems and radiator connecting systems –
Plastics piping systems and multilayer piping systems**Sample preparation, conditioning and apparatus**

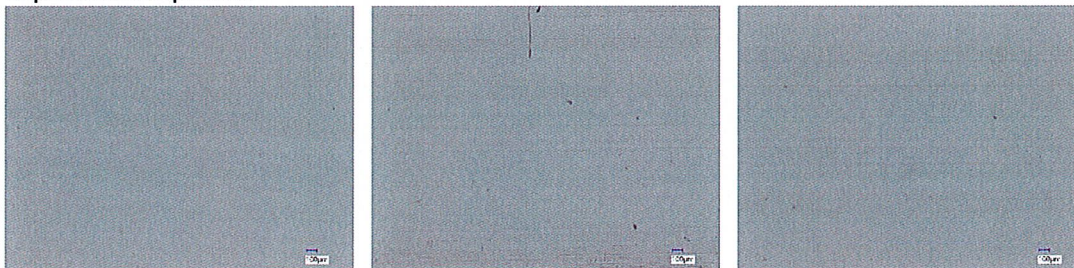
The sample preparation, conditioning, used measuring devices and test equipment are all in accordance with DIN 4726:2017-10.

Test parameters

Conditioning period	:	> 24h (23 ± 2 °C, 50 ± 5 % humidity)
Test temperature	:	(23 ± 2) °C
Relative humidity	:	(50 ± 5) %
Sample thickness	:	10-20 µm
Magnification	:	100x
Number of test pieces	:	3 per tested product
Evaluated surface	:	> 100 mm ²
Test performed by	:	Mr J. Braamhaar
Date of test	:	20-05-2022

Test results

	Sample number		
	1	2	3
Air bubbles	No	No	No
Pigment or other particle agglomerates	No	No	No
Inclusions	No	No	No
Other inhomogeneity's	No	No	No
Surface area of inhomogeneity's (mm ²)	< 0,02	< 0,02	< 0,02

Representative pictures**Remarks**