



DoP

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DECLARATION OF PERFORMANCE

Manufacturer : Uponor GmbH
Product family : Ecoflex Aqua Single
Product parameters : U-Values
Analysing organization : Stressfield Oy

Product and parameters:

| | |
|------------------------------------|---|
| Identification of the product type | Uponor Ecoflex Aqua Single PN 10 (SDR 7.4) |
| Sizes | 25/140, 28/140, 32/140, 40/175, 50/175, 63/175, 75/200, 90/200, 110/200 |
| Assesment of performance | Numerical simulation with ANSYS Fluent 2021 R1 solver. |
| Applied parameters | Product material thermal conductivities at 50 °C. Heat losses, including soil to ambient thermal transmittance, according to EN 15632-1 Appendix B. Added resistance of two-pipe installation according to CEN/TC 107, prEN 13941-1:2016. |

Declared performance:

| Ecoflex Aqua Single | U-Value ¹⁾ [W/mK] | Heat loss ²⁾ [W/m] for corresponding $\Delta\vartheta$ [K] ³⁾ | | | | | | |
|------------------------|---------------------------------|---|-------|-------|-------|-------|-------|-------|
| | | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| 25/140 | 0.140 | 2.79 | 4.19 | 5.58 | 6.98 | 8.37 | 9.77 | 11.16 |
| 28/140 | 0.149 | 2.97 | 4.46 | 5.95 | 7.43 | 8.92 | 10.40 | 11.89 |
| 32/140 | 0.161 | 3.22 | 4.84 | 6.45 | 8.06 | 9.67 | 11.28 | 12.90 |
| 40/175 | 0.160 | 3.21 | 4.81 | 6.42 | 8.02 | 9.63 | 11.23 | 12.83 |
| 50/175 | 0.186 | 3.73 | 5.59 | 7.45 | 9.32 | 11.18 | 13.04 | 14.91 |
| 63/175 | 0.224 | 4.48 | 6.71 | 8.95 | 11.19 | 13.43 | 15.67 | 17.91 |
| 75/200 | 0.230 | 4.61 | 6.91 | 9.21 | 11.52 | 13.82 | 16.12 | 18.43 |
| 90/200 | 0.275 | 5.50 | 8.26 | 11.01 | 13.76 | 16.51 | 19.27 | 22.02 |
| 110/200 | 0.350 | 7.01 | 10.51 | 14.02 | 17.52 | 21.03 | 24.53 | 28.03 |

1) Two-pipe installation. See 'Applied parameters' above.

2) According to EN 15632-1 Appendix B

3) Calculation example for $\Delta\vartheta$:

Flow pipe at 70 °C, return pipe 40 °C, ambient at 5 °C $\rightarrow \Delta\vartheta = (70\text{ °C} + 40\text{ °C})/2 - 5\text{ °C} = 50\text{ °C}$

Signed on behalf of the Analysing organization by Date

11.4.2022

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