

DECLARATION OF PERFORMANCE

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

Product and parameters:

Identification of the product type	Uponor Ecoflex Thermo Single PN 6 (SDR 11)
Sizes	25/140, 32/140, 40/175, 50/175 63/175, 75/200, 90/200, 110/200, 125/250
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 Thermo 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	0.141	2.81	4.22	5.62	7.03	8.43	9.84	11.24
32/140	0.162	3.25	4.87	6.50	8.12	9.75	11.37	13.00
40/175	0.162	3.23	4.85	6.46	8.08	9.70	11.31	12.93
50/175	0.188	3.76	5.64	7.52	9.40	11.28	13.16	15.04
63/175	0.226	4.52	6.78	9.04	11.31	13.57	15.83	18.09
75/200	0.233	4.66	6.99	9.32	11.65	13.97	16.30	18.63
90/200	0.279	5.58	8.37	11.15	13.94	16.73	19.52	22.31
110/200	0.356	7.13	10.69	14.26	17.82	21.39	24.95	28.51
125/250	0.326	6.52	9.78	13.04	16.29	19.55	22.81	26.07

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

²⁾ According to EN 15632-1 Appendix B

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

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

Signed on behalf of the Analysing organization by Date



11.4.2022

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