

DECLARATION OF PERFORMANCE

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

Product and parameters:

Identification of the product type	Uponor Ecoflex VIP Aqua Twin 2xPN 10 (SDR 7.4)
Sizes	25-20/140, 32-20/140, 40-25/140, 50-32/175, 63-40/200.
Assesment of performance	Numerical simulation with ANSYS Fluent 2021 R1 solver.
Applied parameters	PEX-foam thermal conductivity at local temperature. Other material thermal conductivities at 50 °C. Heat losses, including soil to ambient thermal transmittance, according to EN 15632-1 Appendix B.

Declared performance:

Ecoflex VIP Aqua Twin	U-Value ¹⁾ [W/mK]	Heat loss ²⁾ [W/m] for corresponding $\Delta\vartheta$ [K] ³⁾	20	30	40	50	60	70	80
25-20/140	0.118	2.36	3.54	4.73	5.91	7.09	8.27	9.45	
32-20/140	0.125	2.49	3.74	4.99	6.23	7.48	8.73	9.97	
40-25/140	0.148	2.96	4.44	5.91	7.39	8.87	10.35	11.83	
50-32/175	0.158	3.15	4.73	6.30	7.88	9.45	11.03	12.60	
63-40/200	0.171	3.42	5.13	6.84	8.55	10.26	11.97	13.68	

¹⁾ 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 at 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

Vesa Tanskanen, D.Sc. (tech)