



Technical Data Sheet

Flexalen[®] 600

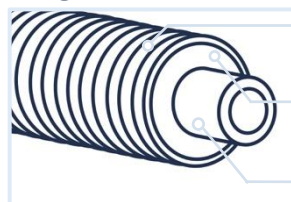
Pre-insulated piping system by Thermaflex[®]

Extremely flexible and fully weldable pre-insulated pipe system for heating / cooling and domestic water applications

Benefit from:

- Fast and easy installation
- Safest choice with homogeneous welding, one material, for increased reliability
- Consistent performance over time, non-corrodible and perfect fit for 4th Generation DH
- Large network capacity with full compatibility with Flexalen[®] SL with service pipes up to OD225mm
- The only Cradle to Cradle[™] certified pre-insulated pipe system in the world
- Thermaflex service: Support with integrated network design, calculation tools, training and on-site support

Design



Polyethylene corrugated pipe, PE
Flexibility and mechanical protection

Polyolefine foam
Closed-cell, CFC-free

Polybutene service pipe, PB-1
With and without oxygen barrier

Applications

- Local district heating and Cooling networks
- Biogas / Biomass / Waste heat recovery
- Island networks for Residential, Schools, Hospitals, etc.



Technical Properties

Flexalen®600 is a pre-insulated flexible pipe system produced conform the European standard EN15632 and KIWA certified according BRL5609.

PB-1 service pipe (EN-ISO 15876)	
• Max. service temperature	95°C
• Continuous service temperature	80°C
• Max. operating pressure	8bar*(95°C)

* depending on the diameter

Thermal Insulation
• Polyolefine foam
• Closed-cell structure
• Water vapor diffusion $\mu \geq 3,500$

Flexalen®600 Heat losses

Flexalen® 600 Single line	Heat loss q [W/m]						
	Average operating temperature T [°C]						
	20°C	30°C	40°C	50°C	60°C	70°C	80°C
25 / 90	1.390	2.824	4.302	5.822	7.385	8.990	10.638
32 / 90	1.713	3.479	5.297	7.167	9.088	11.061	13.084
40 / 90	2.168	4.401	6.698	9.058	11.480	13.966	16.513
50 / 125	2.072	4.203	6.393	8.641	10.947	13.311	15.732
63 / 125	2.754	5.583	8.488	11.468	14.521	17.647	20.846
75 / 125	3.673	7.443	11.307	15.265	19.315	23.458	27.690
90 / 160	3.204	6.489	9.855	13.299	16.823	20.425	24.104
110 / 200	3.386	6.850	10.393	14.012	17.708	21.479	25.326
125 / 200	4.114	8.323	12.624	17.018	21.503	26.078	30.743

Flexalen® 600 Double line	Heat loss q [W/m]						
	Average operating temperature T [°C]						
	20°C	30°C	40°C	50°C	60°C	70°C	80°C
25 + 25 / 125	2.992	4.987	6.981	8.976	10.971	12.965	14.960
32 + 32 / 125	3.826	6.377	8.928	11.478	14.029	16.580	19.131
40 + 40 / 160	3.356	5.680	8.004	10.328	12.652	14.976	17.300
50 + 50 / 160	4.374	7.476	10.579	13.682	16.785	19.887	22.990
63 + 63 / 200	4.374	7.800	11.226	14.652	18.078	21.504	24.930

Calculation parameter:

λ_{soil} : 1.00 W/mK
 R_{soil} soil surface to ambient air: 0.0685 m².K/W
 T_{soil} : 10.0 °C
 Soil covering: 0.8 m

The heat loss characteristics are in accordance with the European standard for flexible heating pipes systems EN15632. During the expected lifetime of the product these values will increase by 7-10 %.

Availability – Heating / Cooling

Single line			
Product code	Dimension	Service pipe OD x s [mm]	Jacket pipe OD [mm]
1010-090025-001	25 / 90	25 x 2.3	90
1010-090032-001	32 / 90	32 x 3.0	90
1010-090040-001	40 / 90	40 x 3.7	90
1010-125050-001	50 / 125	50 x 4.6	125
1010-125063-001	63 / 125	63 x 5.8	125
1010-125075-001	75 / 125	75 x 6.8	125
1010-160090-001	90 / 160	90 x 8.2	160
1000-200110-001	110 / 200	110 x 10.0*	200
1000-200125-001	125 / 200	125 x 11.4*	200

* without oxygen barrier.

Double line			
Product code	Dimension	Service pipe OD x s [mm]	Jacket pipe OD [mm]
1030-125025-001	25 + 25 / 125	25 x 2.3	125
1030-125032-001	32 + 32 / 125	32 x 3.0	125
1030-160040-001	40 + 40 / 160	40 x 3.7	160
1030-160050-001	50 + 50 / 160	50 x 4.6	160
1030-200063-001	63 + 63 / 200	63 x 5.8	200

- Complete installation kits (pipe incl. accessories in carton box)
- Full range of accessories, pre-fabrications and tools
- FlexaLink house connection techniques



Disclaimer

All recommendations and information provided on this data sheet are based on our knowledge and experience. Product specifications are intended as guidelines. Since conditions of service are beyond our control, users must satisfy themselves that products are suitable for the intended use. No guarantee or warranty is given or implied or that any use of products will not infringe rights belonging to other parties. We reserve the right to change product design and properties without notification.