

# Flexalen® 600 Water

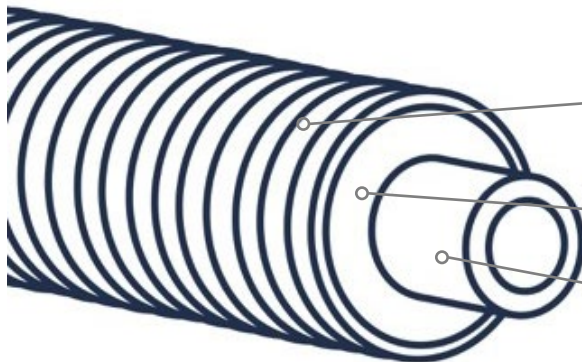
Pre-insulated piping system by Thermaflex®

Extremely flexible and easy to install pre-insulated pipe system for domestic water applications



## Benefits

- Fast and easy installation
- Safest choice with homogeneous welding, one material, for increased reliability
- Large network capacity with full compatibility with Flexalen® PU SL with service pipes up to OD315mm
- The world's only pre-insulated pipe system with Cradle to Cradle® certification



### Design

#### Corrugated PE Casing pipe

Flexibility and mechanical protection

#### Polyolefin foam

Closed-cell, CFC-free

#### Polybutene service pipe, PB-H

### Applications

- All domestic hot- and cold-water applications
- Drinking water
- Geothermal water

## Technical Properties

Flexalen® 600 is a pre-insulated flexible plastic pipe system produced conform to the European standard EN15632-1,3 (DOC) and KIWA system certified as well as third-party controlled according to BRL-K17401. The PB service pipe has several drinking water approvals like KTW (DE), WRAS(UK), ATA(NL), ACS (FR) and many more.

### 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

Polyolefin foam
Closed-cell structure, CFC-free
Water vapour diffusion $\mu \geq 3,500$



### 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 the products will not infringe rights belonging to other parties. We reserve the right to change product design and properties without notification.



## Flexalen® 600 Energy losses

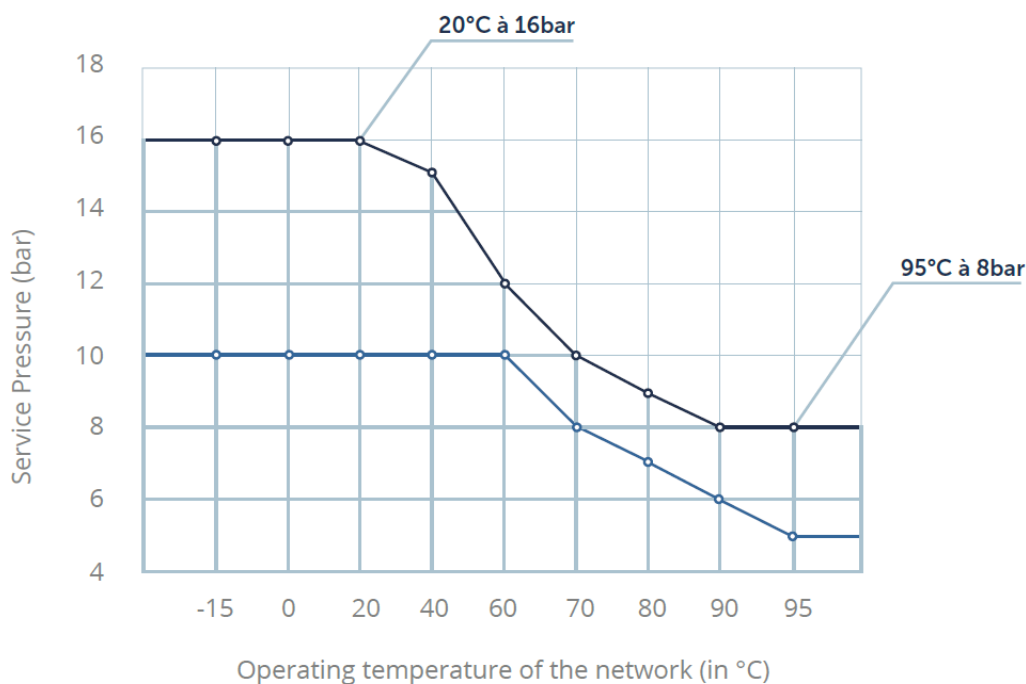
Energy loss q [W/m] for one Single line								
Flexalen® 600 Single line	U value W/m.K	Operating temperature T [°C]						
		20°C	30°C	40°C	50°C	60°C	70°C	80°C
25 / 90	0.148	1.48	2.96	4.44	5.92	7.4	8.88	10.36
32 / 90	0.182	1.82	3.64	5.46	7.28	9.1	10.92	12.74
40 / 90	0.230	2.3	4.6	6.9	9.2	11.5	13.8	16.1
40 / 125	0.178	1.78	3.56	5.34	7.12	8.9	10.68	12.46
50 / 90	0.365	3.1	6.2	9.3	12.4	15.5	18.6	21.7
50 / 125	0.219	2.19	4.38	6.57	8.76	10.95	13.14	15.33
50 / 160	0.182	1.82	3.64	5.46	7.28	9.1	10.92	12.74
63 / 125	0.290	2.9	5.8	8.7	11.6	14.5	17.4	20.3
63 / 160	0.222	2.22	4.44	6.66	8.88	11.11	13.32	15.54
75 / 125	0.452	3.83	7.66	11.49	15.32	19.15	22.98	26.81
75 / 160	0.265	2.65	5.3	7.95	10.6	13.25	15.9	18.55
90 / 160	0.336	3.36	6.72	10.08	13.44	16.8	20.16	23.52
110 / 200	0.354	3.54	7.08	10.62	14.16	17.7	21.24	24.78
125 / 200	0.430	4.3	8.6	12.9	17.2	21.5	25.8	30.1

### Calculation parameter

$\lambda_{\text{soil}}$ :	1.00 W/m·K
R soil surface to ambient air:	0.0685 m <sup>2</sup> ·K/W
$T_{\text{soil}}$ :	10.0 °C
Soil covering:	0.8 m

The energy 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 %.

## Flexalen® 600 Pressure rating



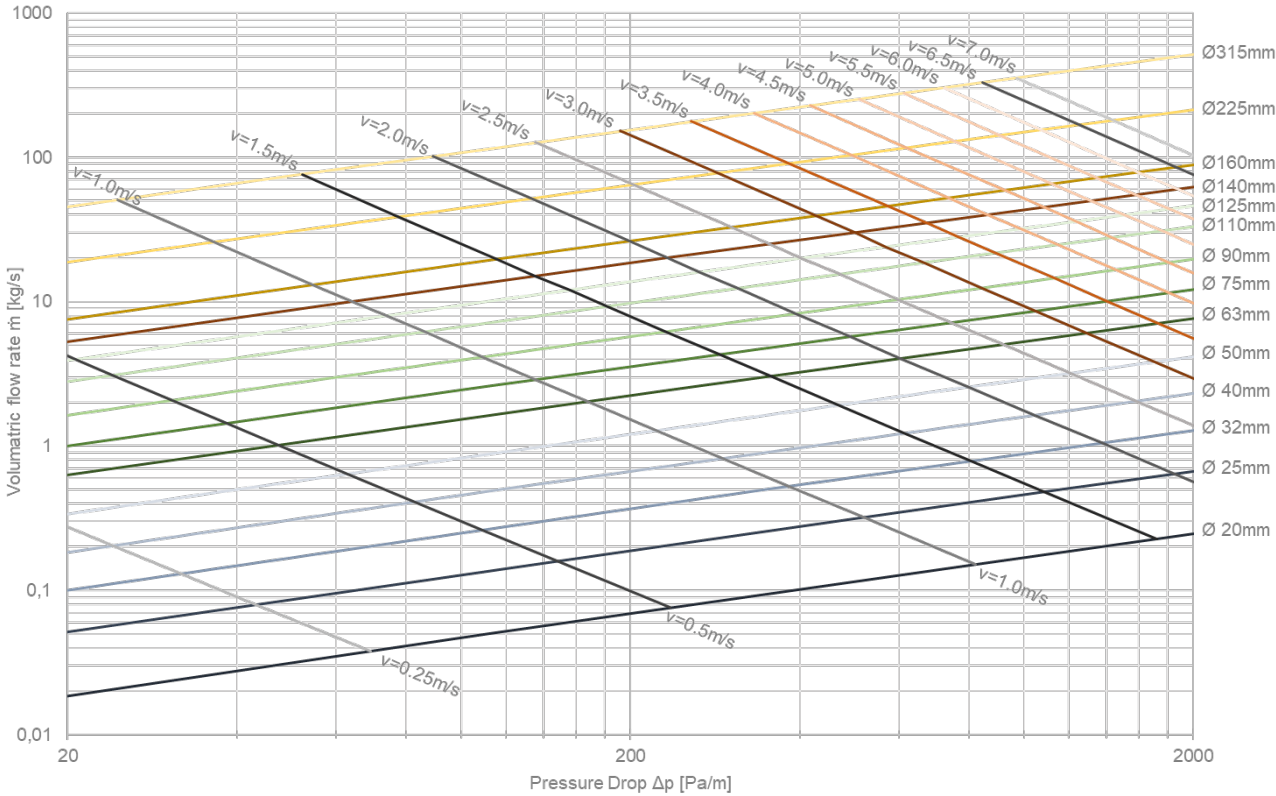
- Up to OD110 20°C/16 bar 95°C/8 bar
- ≥ OD125 20°C/10 bar 95°C/5 bar



### Flexalen® 600 Pressure drop PB

Determine the pressure drop using Flexalen® pipe systems at a flow temperature of 90°C (Flow line). For lower medium temperatures the pressure drop is higher: e.g. for 60°C 10%; for 10°C 20% higher.

For support on a complete district heating network design please contact your Thermaflex partner!





## Availability - Domestic Water

Single line						
Product code	Dimension	Service pipe OD x s [mm]	Casing pipe OD [mm]	Weight [kg/m]	min. bending radius [m]	max. length [m]
1000-090025-001	25 / 90	25 x 2.3	90	0.75	0.40	500
1000-090032-001	32 / 90	32 x 2.9	90	0.86	0.40	500
1000-090040-001	40 / 90	40 x 3.7	90	1.00	0.50	500
1000-125040-001	40 / 125	40 x 3.7	125	1.98	0.50	300
1000-090050-001	50 / 90	50 x 4.6	90	1.22	0.50	500
1000-125050-001	50 / 125	50 x 4.6	125	2.08	0.70	300
1000-160050-001	50 / 160	50 x 4.6	160	2.40	0.70	150
1000-125063-001	63 / 125	63 x 5.8	125	2.43	0.80	300
1001-125063-015	63 / 125 SL <sup>1</sup>	63 x 5.8	125	2.43	0.80	5.8
1000-160063-001	63 / 160	63 x 5.8	160	2.75	0.80	150
1000-125075-001	75 / 125	75 x 6.8	125	3.03	0.80	300
1000-160075-001	75 / 160	75 x 6.8	160	3.03	0.80	150
1001-160075-015	75 / 160 SL <sup>1</sup>	75 x 6.8	160	3.03	0.80	5.8
1000-160090-001	90 / 160	90 x 8.2	160	3.64	1.00	150
1001-160090-015	90 / 160 SL <sup>1</sup>	90 x 8.2	160	3.64	1.00	5.8
1000-200110-001	110 / 200	110 x 10.0	200	5.40	1.25	100
1001-200110-015	110 / 200 SL <sup>1</sup>	110 x 10.0	200	5.40	1.25	5.8
1001-200110-030	110 / 200 SL <sup>1</sup>	110 x 10.0	200	5.40	1.25	11.8
1000-200125-001	125 / 200 <sup>2</sup>	125 x 11.4	200	6.38	1.50	80
1001-200125-015	125 / 200 SL <sup>1,2</sup>	125 x 11.4	200	6.38	1.50	5.8
1001-200125-030	125 / 200 SL <sup>1,2</sup>	125 x 11.4	200	6.38	1.50	11.8

Double line						
Product code	Dimension	Service pipe OD x s [mm]	Casing pipe OD [mm]	Weight [kg/m]	min. bending radius [m]	max. length [m]
1020-125025-001	25 + 25 / 125	25 x 2.3 + 25 x 2.3	125	1.80	0.60	300
1120-125000-001	32 + 25 / 125	32 x 2.9 + 25 x 2.3	125	1.50	0.60	300
1120-160000-001	40 + 25 / 160	40 x 3.7 + 25 x 2.3	160	2.60	0.80	150
1120-160002-001	50 + 32 / 160	50 x 4.6 + 32 x 2.9	160	3.01	0.90	150

Higher insulation range with increased delivery time

<sup>1</sup> Semi-flexible pipe system, straight lengths (available in 6m sticks)

<sup>2</sup> Maximum temperature / pressure rating 95°C / 5 bar

- All types of homogenous plastic welded **Prefabrications**
- Full range of weldable **PB fittings**
- **Compression fitting system**
- Full range of accessories and tools

