

# Flexalen<sup>®</sup> 600 Water

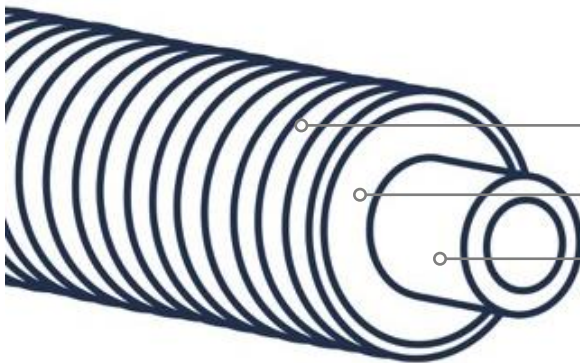
Pre-insulated piping system by Thermaflex<sup>®</sup>

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<sup>®</sup> PU SL with service pipes up to OD315mm
- The only Cradle to Cradle<sup>™</sup> certified pre-insulated pipe system in the world
- Thermaflex service: Support with integrated network design, calculation tools, training and on-site support



### 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<sup>®</sup> 600 is a pre-insulated flexible plastic pipe system produced conform the European standard EN15632-1,3 (DOC) and KIWA system certified as well as third-party controlled according 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 vapor diffusion $\mu \geq 3,500$



## Flexalen® 600 Heat losses

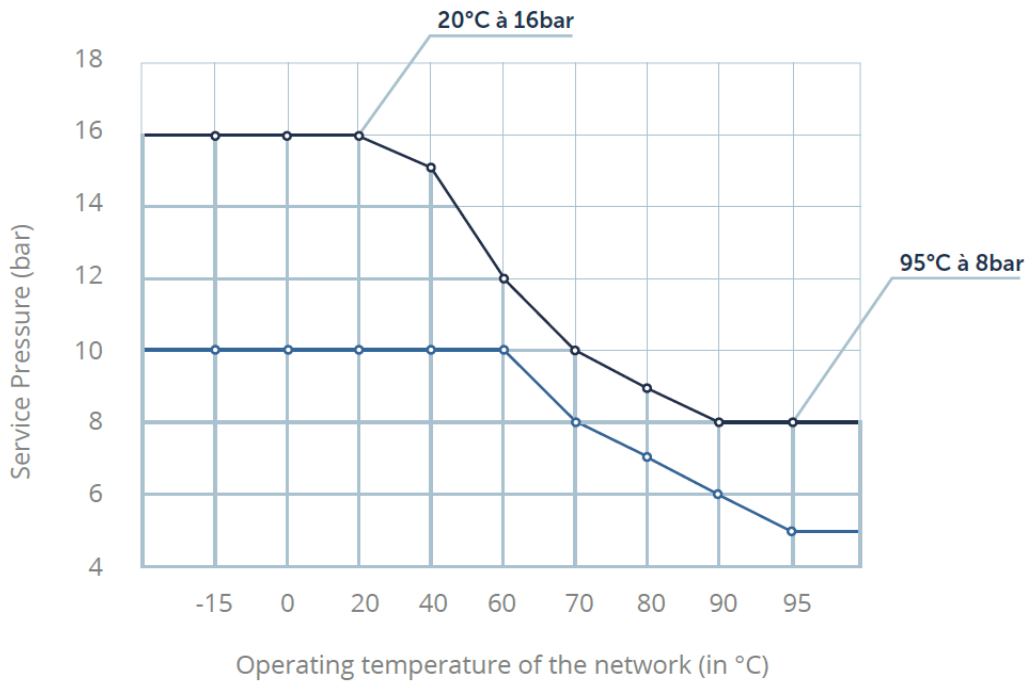
Heat loss $q$ [W/m] for one Single line							
Flexalen® 600 Single line	Operating temperature $T$ [°C]						
	20°C	30°C	40°C	50°C	60°C	70°C	80°C
25 / 90	1.4	2.8	4.3	5.8	7.4	9.0	10.6
32 / 90	1.7	3.5	5.3	7.2	9.1	11.1	13.1
40 / 90	2.2	4.4	6.7	9.1	11.5	14.0	16.5
40 / 125	1.7	3.4	5.2	7.0	8.9	10.8	12.8
50 / 90	3.0	6.0	9.1	12.4	15.7	19.0	22.5
50 / 125	2.1	4.2	6.4	8.6	10.9	13.3	15.7
50 / 160	1.7	3.5	5.3	7.2	9.1	11.1	13.1
63 / 125	2.8	5.6	8.5	11.5	14.5	17.6	20.8
63 / 160	2.1	4.3	6.5	8.8	11.1	13.5	15.9
75 / 125	3.7	7.4	11.3	15.3	19.3	23.5	27.7
75 / 160	2.5	5.1	7.8	10.5	13.2	16.1	19.0
90 / 160	3.2	6.5	9.9	13.3	16.8	20.4	24.1
110 / 200	3.4	6.9	10.4	14.0	17.7	21.5	25.3
125 / 200	4.1	8.3	12.6	17.0	21.5	26.1	30.7

### 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 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 %.

## Flexalen® 600 Pressure rating

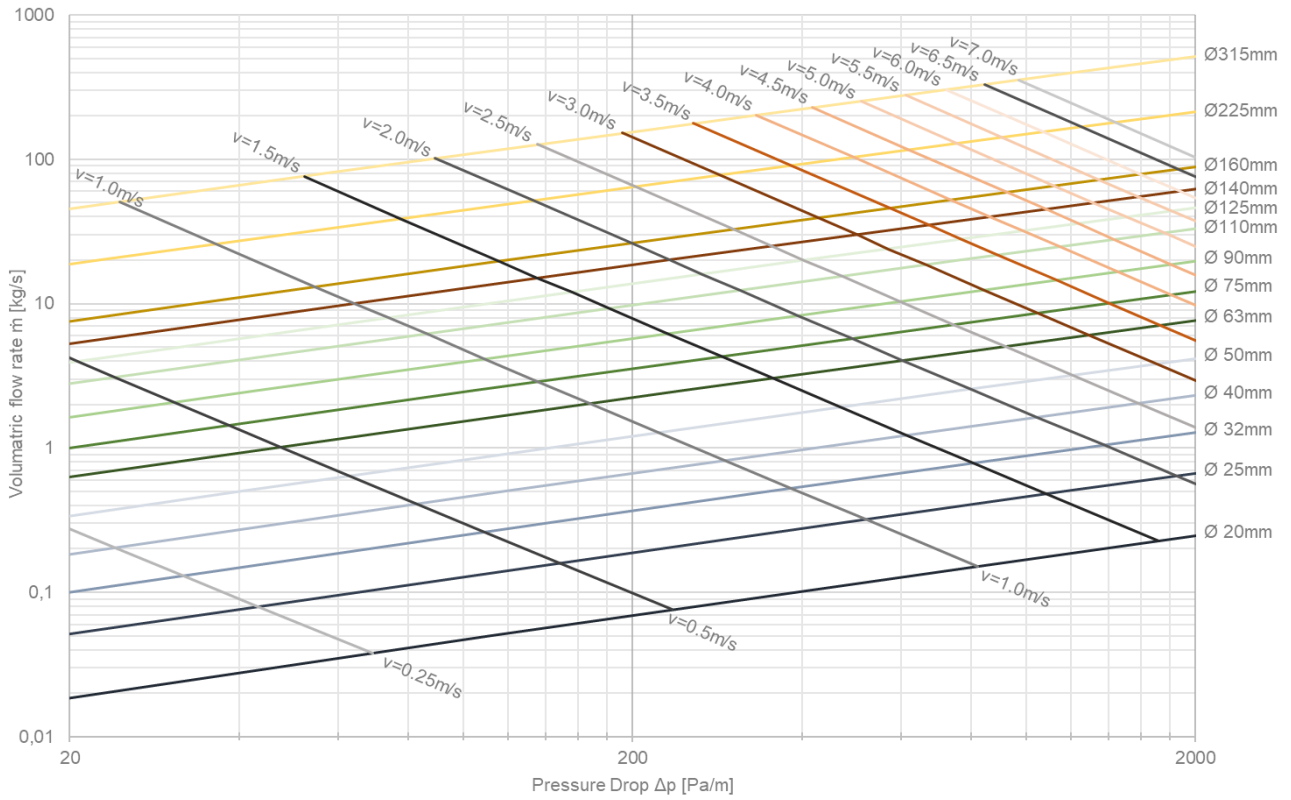


- Up to OD110 20°C/16 bar 95°C/8 bar
- ≥ OD125 20°C/10 bar 95°C/5 bar

## 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	6
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	6
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	6
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	6
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	6

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
1121-200005-001	63 + 32 / 200	63 x 5.8 + 32 x 2.9	200	3.35	1.00	50
1121-200006-001	63 + 40 / 200	63 x 5.8 + 40 x 3.7	200	3.49	1.00	50

■+■ 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

- FlexaLink, prefabricated house connections
- All types of homogenous plastic welded Prefabrications
- Full range of weldable PB fittings
- Compression fitting system
- Full range of accessories and tools

