

#### What Is PEX-Flex?

Dual PEX-Flex is a pre-insulated pipe system complete with bonded polyurethane foam insulation and smooth polyethylene jacket. It is ideally suited for hydronic heating applications including campus style district energy, snow/ice melt systems and outdoor hydronic heaters. Supplied in coils, this seamless 2-in-1\* (supply & return bundled together) pipe system is economical, simple to install and highly effective even in harsh soil conditions.

\*Also available in single format up to 4" OD.

## Why Use PEX-Flex

Only a professionally manufactured insulated pipe will maximize the efficiency of an outdoor hydronic heater by keeping heat losses to a minimum. By effectively heating the house (not the ground), less fuel is required, less wood is burned producing less emissions. Whatever your budget, you simply can't afford not to install PEX-Flex! Supplied in coils, this 2-in-1 (supply and return bundled together) pipe is economical, simple to install and highly effective even in harsh, wet soil conditions.



### Temperature Drop with Dual PEX-Flex

Using 2 x 1 in x 4.3 in OD (2 x 32 mm x 110 mm OD) with following operating parameters: Supply temperature:  $180^{\circ}F$  ( $82^{\circ}C$ ) • Soil temperature:  $32^{\circ}F$  ( $0^{\circ}C$ )

Flow		Outlet Temperature		
GPM (US)	I/sec	After 100 ft (30 m)	After 150 ft (46 m)	
3	0.19	178.5°F (81.4°C)	177.8°F (81.0°C)	
5	0.32	179.1°F (81.7°C)	178.7°F (81.5°C)	
10	0.63	179.5°F (81.9°C)	179.3°F (81.8°C)	

#### **Dual PEX-Flex Dimensions**

Nominal pipe size	Carrier pipe OD	Carrier pipe ID	Carrier pipe wall thickness	Jacket pipe OD	Standard/ Maximum coil lengths*	Minimum bending radius	Weight
in	in (mm)	in (mm)	in (mm)	in (mm)	ft (m)	ft (m)	lb/ft (kg/m)
2 x 3/4	2 x 0.98 (2 x 25)	0.784 (20)	0.098 (2.5)	4.3 (110)	328/ 656 (100/200)	3.5 ( 1.1)	1.4 (2.1)
2 x 1	2 x 1.26 (2 x 32)	1.032 (26.2)	0.114 (2.9)	4.3 (110)	567/1,134 (173/246)	3.5 (1.1)	1.5 (2.2)
2 x 1¼	2 x 1.57 (2 x 40)	1.280 (32.6)	0.145 (3.7)	4.9 (125)	328/ 656 (100/200)	4.0 (1.2)	1.8 (2.7)
2 x 1½	2 x 1.97 (2 x 50)	1.608 (40.8)	0.181 (4.6)	6.3 (160)	328 (100)	5.2 (1.6)	2.8 (4.1)

\* Pipe can also be supplied to exact length required. Maximum lengths are special order. n.b.: All core pipe sizes are metric; metric compression x imperial NPT threaded adaptors are supplied as required.

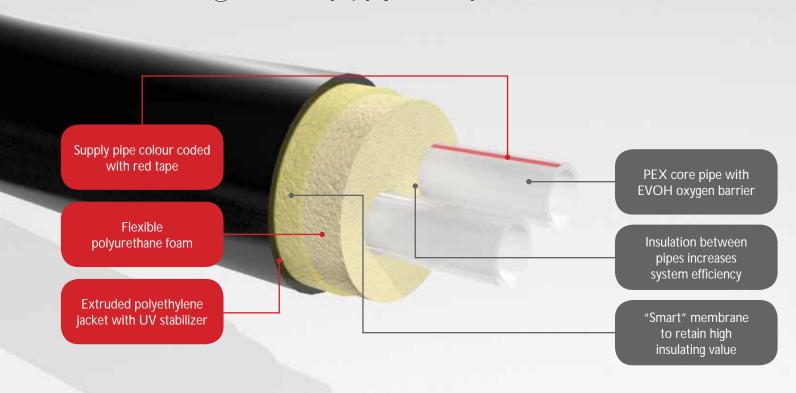
# **PEX-Flex Temperature and Pressure**

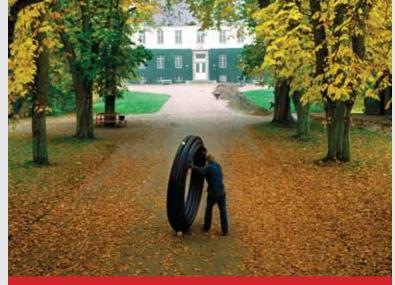
Pipe size	Max. temperature	Max. pressure
in (mm)	Fahrenheit (Celsius)	P.S.I. (bar)
¾- 1½ (19 - 50)	203 (95)	87 (6)



## **Advantages of Logstor Factory Insulated DUAL PEX-Flex**

- The low thermal conductivity of polyurethane foam delivers very high insulating performance, saving you fuel and furnace loading time this also allows for a smaller overall jacket size relative to other insulating materials.
- The entire system is made of plastic; there is nothing to corrode over time.
- The PEX-Flex carrier pipe is made of cross linked polyethylene (PEX) with EVOH coating which prevents oxygen from penetrating the pipe wall and entering the heating system.
- PEX-Flex is "bonded" and "self-compensating" with respect to expansion and contraction... meaning the carrier pipe(s), insulation and jacket are mechanically linked to one another and move collectively.
- All PEX-Flex pipe systems come equipped with a "smart" membrane (diffusion barrier) between the outer casing and the insulation. This leak proof diffusion barrier prevents (cyclopentane) gas in the foam from escaping through the jacket and being replaced by atmospheric air with reduced insulating properties a process called ageing. This keeps the operating performance high throughout the service life of the pipe.
- The pipe installs quickly and easily without solvent welding, special tools or heavy equipment resulting in lower installed cost when compared to other insulating methods.
- No drainage tile, sand/gravel fill or deep/wide trench required. PEX-Flex can be shallow buried even in high water table areas.
- Flexibility of coiled PEX-Flex often eliminates the need for joints, elbows and fittings plus custom 'cut-to-length' sections eliminate waste.
- Lasts indefinitely paying for itself many times over.





# Simply the BEST Insulation

PEX-Flex continues to lead the industry with the most efficient Polyurethane foam encased in a diffusion barrier to maintain its efficiency for the lifetime of the system.

Temperature		
Fluid Type	Water	
Flow Temperature	180°F	
Return Temperature	140°F	
Soil/Ambient	32°F	
Soil Coverage	18"	
System Pa	arameters	
Dual PEX-Flex 32mm	2 x 1"	
Thermal Conductivity (insulation)	0.15 Btu/ (ft²• hr •° F)	
Pipe Length	100 ft.	

Results				
Heat Loss	10.59	Total Loss	1059	
	Btu(hr/ft)	in this System	Btu/hr	

\*Derived using LOGSTOR CALCULATOR @ http://calc.logstor.com 01/12

## The Payback:

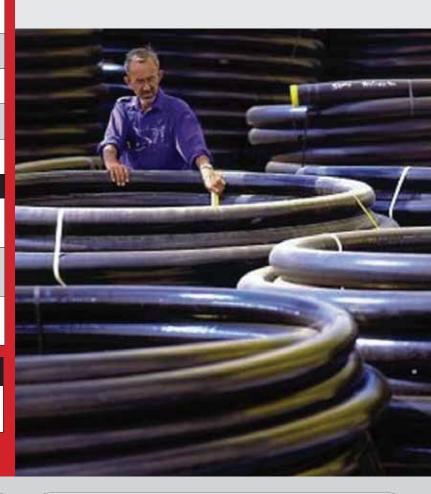
Installing PEX-Flex actually pays for itself over time\*, and you're also helping to do your part to reduce emissions.

The expected yearly savings is approximately 1 1/2 cords of wood based on the following assumptions:

- An average cord of wood yields 24 million BTU's (7 MW/hr).
- The trench from the furnace to the building(s) is approximately 100 ft (30 m) long.

The payback is based on a comparison to bare or poorly insulated piping systems. These inferior systems may be the result of using materials with insufficient insulating properties, inadequate insulation thickness, or may simply be insulation that absorbed moisture due to water ingress through the jacket or joints.

\*Individual payback times will vary relative to the severity and length of the heating season.



For more information

www.pexflex.net 1-866-PEX-COIL (739-2645)



Local Agent/Distributor