

SUBMITTAL SHEET



PEXFLOW™ POTABLE WATER



PEX-A TUBING COILS & STRAIGHT LENGTHS



Product Application

Pexflow PEX-A is used primarily for potable water distribution, but can also be used in radiant heating and cooling systems containing no ferrous corrodible components or where ferrous components are isolated from the tubing.

Technical Data

Material:

Crosslinked Polyethylene Material; Manufactured using Superior PEX-A ENGEL Method

Standard grade hydrostatic ratings:

- 200°F at 80 psi (93°C at 5.5 bar)
- 180°F at 100 psi (82°C at 6.9 bar)
- 73°F at 160 psi (23°C at 11 bar)
- 120°F (49°C) at 130 psi (896 kPa)

Linear Expansion Rate:

1.10"/10°F/100' (27.94mm/5.56°C/30.48m)

Minimum Bend Radius:

6 x OD at 20°C

Installation:

Approved for use with ASTM F1960 & ASTM F1807 connections, in accordance to Pexflow Installation guide.

Approvals:

NSF Certified to ASTM F876/877 & CSA B137.5-2017 / 2011a - per NSF/ANSI 14, NSF/ANSI 61 & NSF/ANSI 372

Standards:

ANSI/NSF 14; ANSI/NSF 61; ASTM F876; ASTM F877; ASTM F1960; ASTM F2023; ASTM E84; CAN/ULC S102.2; ASTM E119/UL 263; CAN/ULC S101; ASTM E814/ULC S115; AWWA C904; CSA B137.5; CSA B214

Plenum Rating:

25 flame spread / 50 smoke developed to ASTM E84:

- 1/2" and 3/4" with spacing of 18" between each run of tubing
- 1" through 2" when insulated with 1/2" fiberglass insulation

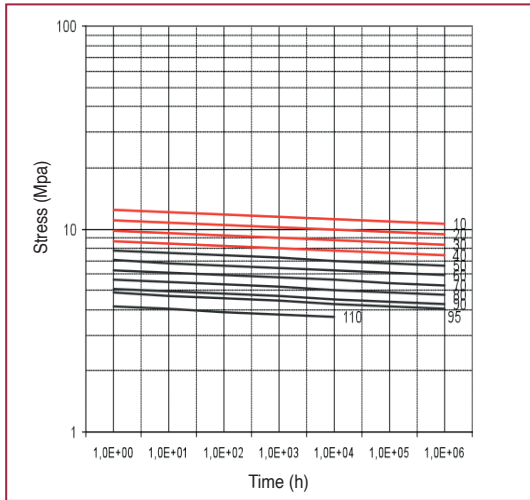
CAN/ULC S102.2:

- 1/2" through 1" with spacing of 18" between each run of tubing
- 1-1/4" through 2" when insulated with 1/2" fiberglass insulation

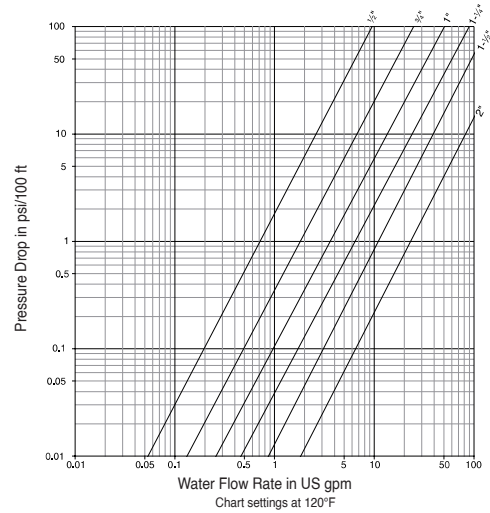
Red Part#	Blue Part#	White Part#	Size	Length	Type	ID	OD	Weight
A-PFW-R12100	A-PFW-B12100	A-PFW-W34100	1/2"	100'	Coils	0.475"	0.625"	6 lbs.
A-PFW-R12300	A-PFW-B12300	A-PFW-W34300	1/2"	300'	Coils	0.475"	0.625"	18 lbs.
A-PFW-R12500	A-PFW-B12500	A-PFW-W12500	1/2"	500'	Coils	0.475"	0.625"	27 lbs.
A-PFW-R121000	A-PFW-B121000	A-PFW-W34500	1/2"	1000'	Coils	0.475"	0.625"	54 lbs.
A-PFW-R34100	A-PFW-B34100	A-PFW-W12100	3/4"	100'	Coils	0.671"	0.875"	10 lbs.
A-PFW-R34300	A-PFW-B34300	A-PFW-W12300	3/4"	300'	Coils	0.671"	0.875"	34 lbs.
A-PFW-R34500	A-PFW-B34500	A-PFW-W121000	3/4"	500'	Coils	0.671"	0.875"	54 lbs.
A-PFW-R1100	A-PFW-B1100	A-PFW-W1100	1"	100'	Coils	0.862"	1.125"	20 lbs.
A-PFW-R1300	A-PFW-B1300	A-PFW-W1300	1"	300'	Coils	0.862"	1.125"	56 lbs.
A-PFW-R1500	A-PFW-B1500	A-PFW-W1500	1"	500'	Coils	0.862"	1.125"	93 lbs.
A-PFW-R1220	A-PFW-B1220	A-PFW-W1220	1/2"	20'	Straight	0.475"	0.625"	1.2 lbs.
A-PFW-R3420	A-PFW-B3420	A-PFW-W3420	3/4"	20'	Straight	0.671"	0.875"	2 lbs.
A-PFW-R120	A-PFW-B120	A-PFW-W120	1"	20'	Straight	0.862"	1.125"	4 lbs.
-	-	A-PFW-W11420	1-1/4"	20'	Straight	1.054"	1.375"	6.8 lbs.
-	-	A-PFW-W11220	1-1/2"	20'	Straight	1.244"	1.625"	8.8 lbs.
-	-	A-PFW-W220	2"	20'	Straight	1.629"	2.125"	13.6 lbs.
-	-	A-PFW-W114100	1-1/4"	100'	Coils	1.054"	1.375"	34.0 lbs.
-	-	A-PFW-W114300	1-1/4"	300'	Coils	1.054"	1.375"	106.0 lbs.
-	-	A-PFW-W112100	1-1/2"	100'	Coils	1.244"	1.625"	44.0 lbs.
-	-	A-PFW-W112300	1-1/2"	300'	Coils	1.244"	1.625"	133.0 lbs.
-	-	A-PFW-W2100	2"	100'	Coils	1.629"	2.125"	68.2 lbs.
-	-	A-PFW-W2300	2"	300'	Coils	1.629"	2.125"	204.6 lbs.



Regression Curves PEX-A



PEX Tubing Pressure Drop Graph



Thermal Characteristics

Characteristic	Value	Unit
Maximum Service Temperature	95	°C
Maximum High Temperature	110	°C
Heat Reversion 120°C Heat; 1 Hour	<2.5	%
Specific Heat at 23°C	2.3	KJ/kg-K
Thermal Conductivity	0.35 - 0.38	W/m-K
VICAT Temperature	130 - 132	°C
Permeability O2	0.08	g/m3d
Lineal Extension Coefficient	0.026	mm/m °K

Physical Characteristics

Characteristic	Value	Unit
Density	951	Kg/m ³
Crosslinking Degree	>70	% weight
Roughness	0.007	mm
Weight	96	g/m
Volume	0.13	l/m

Domestic Cold-Water Piping

- Maximum velocity of 12 ft./sec. through pipe
- Recommended velocity of 10 ft./sec. through pipe

Mechanical Characteristics

Characteristic	Value	Unit
Tensile Resistance	>22	N/mm ²
Elongation at Break	>400	%
Modulus of Elasticity at 20°C	>800	N/mm ²
Internal Pressure Resistance s=4.8 Mpa, 95°C	>1	Hours
Internal Pressure Resistance s=4.7 Mpa, 95°C	>22	Hours
Internal Pressure Resistance s=4.6 Mpa, 95°C	>165	Hours
Internal Pressure Resistance s=4.4 Mpa, 95°C	>1000	Hours
Internal Pressure Resistance s=2.5 Mpa, 110°C	>1	Years

Domestic Hot-Water Piping

- Maximum velocity of 8 ft./sec. through pipe
- Maximum operating temperature of 200°F (93.3°C)

PEX-A Water Size Table 2012 UPC - Flush Tank 100% water at 60°F 10.028 PSI/100 ft. Maximum Velocity = 10 ft. / sec.

Pipe Size	WSFU Range	Velocity (ft./sec)	GPM
3/8"	0-0	3.60	1.08
1/2"	1-2	4.60	2.54
3/4"	3-7	5.80	6.39
1"	8-17	7.00	12.73
1-1/4"	18-33	8.00	21.76
1-1/2"	34-63	9.00	34.10
2"	64-199	10.00	64.97

PEX-A Water Size Table 2012 UPC - Flush Tank 100% water at 120°F 10.028 PSI/100 ft. Maximum Velocity = 8 ft. / sec.

Pipe Size	WSFU Range	Velocity (ft./sec)	GPM
3/8"	0-0	4.10	1.23
1/2"	1-2	5.00	2.76
3/4"	3-8	6.40	7.05
1"	9-19	7.60	13.83
1-1/4"	20-33	8.00	21.76
1-1/2"	34-54	8.00	30.31
2"	55-134	8.00	51.97

PEX-A Water Size Table 2012 UPC - Flush Tank 100% water at 110°F 10.028 PSI/100 ft. Maximum Velocity = 2 ft. / sec.

Pipe Size	WSFU Range	Velocity (ft./sec)	GPM
3/8"	0-0	2.0	0.60
1/2"	0-0	2.0	1.10
3/4"	1-1	2.0	2.20
1"	2-3	2.0	3.64
1-1/4"	4-6	2.0	5.44
1-1/2"	7-9	2.0	7.58
2"	10-17	2.0	12.99

*Note: To maintain velocities at or below 2 ft./sec PEX allows the use of 1/2" pipe for domestic hot-water return piping provided a flow-control device

Engineer's Approval

Job Name / # _____	Contractor _____	Date _____
Job Location _____	Engineer _____	Date _____