



RADIANT • PLUMBING • SNOWMELT • CONTROLS

## Pressure drop charts for Terrendis Pre-Insulated Metric PEX pipes

### Pressure Drop Methodology

Calculating pressure drop through a tube or circuit is dependent on a wide range of factors – viscosity, density, flow rate, and tube conditions. Pressure drop (loss) in the circuits is determined using the Darcy-Weisback equation. These equations are referenced in ASHRAE's 2005 Handbook - Fundamentals, section 2.0, equations 5, 18, 30, 32a, 32b, and 32c.

Glycol values referenced are based on DowFrost™ Technical Specification (form no. 180-01272-402AMS). Different glycol concentrations, types, and formats will result in different pressure drop calculations. The data points provided should only be used as a reference point.

### Data

DowFrost™ 50% Solution (extrapolated data)				Water			
°F	Density (lbs/cu.ft.)	Dynamic Viscosity (cps)*	Dynamic Viscosity (lb-ft-s)	°F	Density (lbs/cu.ft.)	Dynamic Viscosity (cps)	Dynamic Viscosity (lb-ft-s)
40	65.670	14.280	0.0096	80	62.22	0.858	0.00058
60	65.210	12.394	0.0048	100	61.99	0.681	0.00046
80	64.750	10.509	0.0029	120	61.71	0.557	0.00037
100	64.290	8.623	0.0020	140	61.38	0.466	0.00031
120	63.830	6.737	0.0014	160	61.00	0.398	0.00027
140	63.370	4.851	0.0011	180	60.58	0.345	0.00023
160	62.910	2.966	0.0009				
180	62.450	1.080	0.0007				

\* derived equation used for extrapolation:  $y = 8473.8x^{(-1.7307)}$

The table shown assume an approximate mixture of water/glycol of 50% concentration. Actual pressure drop values will change depending on actual concentrations and fluid temperature.

### Calculations

Where:

HL = Head Loss in feet per 100 feet of pipe  
 f = Friction factor  
 L = Length of pipe (ft)  
 V = Fluid velocity (ft/sec)  
 d = Pipe inside diameter (ft)

g = Gravity (32.2 ft/sec<sup>2</sup>)  
 Re = Reynold's number  
 e = Pipe roughness factor (est. 3.0E-6)

$$HL = f \left[ \frac{LV^2}{d2g} \right]$$

$$f = 8 \left[ \left( \frac{8}{Re} \right)^{12} + \frac{1}{(A+B)^{1.5}} \right]^{1/12}$$

$$A = 2.457 \ln \left[ \frac{1}{(7/Re)^{0.9} + (0.27e/d)} \right]^{16}$$

$$B = \frac{37,530}{Re}$$

**50 mm Pex Single, Pressure Drop per 100' (1.79" Nom. ID)**

°F	11.00 (1.78)	12.00 (1.94)	13.00 (2.11)	14.00 (2.27)	15.00 (2.43)	16.00 (2.59)	17.00 (2.75)	18.00 (2.92)	19.00 (3.08)	20.00 (3.24)	25.00 (4.05)	30.00 (4.86)	35.00 (5.67)	40.00 (6.48)	GPM (ft/sec)
80°	0.90	1.04	1.20	1.37	1.55	1.74	1.93	2.14	2.35	2.58	3.84	5.31	7.00	8.89	100% Water
	1.37	1.59	1.82	2.07	2.33	2.60	2.88	3.18	3.49	3.81	5.61	7.70	10.07	12.72	50% Water/Glycol
100°	0.85	0.99	1.14	1.30	1.47	1.65	1.84	2.03	2.24	2.45	3.65	5.07	6.68	8.50	100% Water
	1.23	1.43	1.64	1.86	2.09	2.34	2.60	2.87	3.15	3.45	5.08	6.99	9.17	11.59	50% Water/Glycol
120°	0.81	0.95	1.09	1.25	1.41	1.58	1.76	1.95	2.15	2.35	3.51	4.87	6.42	8.17	100% Water
	1.13	1.31	1.50	1.71	1.93	2.16	2.40	2.65	2.91	3.19	4.71	6.49	8.52	10.79	50% Water/Glycol
140°	0.78	0.91	1.05	1.20	1.36	1.52	1.70	1.88	2.07	2.27	3.39	4.70	6.21	7.91	100% Water
	1.05	1.22	1.41	1.60	1.81	2.02	2.25	2.48	2.73	2.99	4.43	6.11	8.03	10.18	50% Water/Glycol
160°	0.75	0.88	1.02	1.16	1.31	1.47	1.64	1.82	2.01	2.20	3.29	4.57	6.03	7.69	100% Water
	0.99	1.16	1.33	1.51	1.71	1.91	2.13	2.35	2.59	2.83	4.20	5.81	7.64	9.69	50% Water/Glycol
180°	0.73	0.86	0.99	1.13	1.28	1.43	1.60	1.77	1.95	2.14	3.20	4.45	5.88	7.50	100% Water
	0.95	1.10	1.27	1.45	1.63	1.83	2.04	2.25	2.48	2.72	4.03	5.58	7.34	9.32	50% Water/Glycol

**63 mm Pex Single, Pressure Drop per 100' (2.25" Nom. ID)**

°F	15.00 (1.53)	20.00 (2.04)	25.50 (2.55)	30.00 (3.08)	35.00 (3.57)	40.00 (4.08)	45.00 (4.59)	50.00 (5.10)	55.00 (5.61)	60.00 (6.13)	65.00 (6.64)	70.00 (7.15)	GPM (ft/sec)
80°	0.52	0.86	1.27	1.76	2.31	2.94	3.63	4.38	5.20	6.08	7.02	8.02	100% Water
	0.78	1.28	1.88	2.58	3.37	4.25	5.22	6.27	7.41	8.63	9.93	11.32	50% Water/Glycol
100°	0.49	0.81	1.21	1.67	2.20	2.80	3.46	4.18	4.97	5.81	6.71	7.67	100% Water
	0.70	1.15	1.70	2.34	3.06	3.86	4.75	5.72	6.76	7.88	9.08	10.36	50% Water/Glycol
120°	0.47	0.78	1.16	1.61	2.12	2.69	3.33	4.02	4.78	5.59	6.46	7.39	100% Water
	0.65	1.06	1.57	2.16	2.83	3.59	4.41	5.32	6.30	7.35	8.47	9.66	50% Water/Glycol
140°	0.45	0.75	1.12	1.55	2.04	2.60	3.22	3.89	4.62	5.41	6.26	7.16	100% Water
	0.60	1.00	1.47	2.03	2.67	3.38	4.16	5.02	5.94	6.94	8.00	9.13	50% Water/Glycol
160°	0.43	0.73	1.08	1.50	1.98	2.52	3.12	3.78	4.49	5.26	6.09	6.97	100% Water
	0.57	0.94	1.40	1.93	2.53	3.21	3.96	4.78	5.66	6.61	7.63	8.72	50% Water/Glycol
180°	0.42	0.71	1.05	1.46	1.93	2.46	3.05	3.69	4.38	5.14	5.94	6.80	100% Water
	0.54	0.90	1.34	1.85	2.43	3.08	3.80	4.59	5.45	6.37	7.35	8.39	50% Water/Glycol

**75 mm Pex Single Pressure Drop per 100' (2.69" Nom. ID)**

°F	30.00 (2.15)	35.00 (2.50)	40.00 (2.86)	45.00 (3.22)	50.00 (3.58)	55.00 (3.93)	60.00 (4.29)	65.00 (4.65)	70.00 (5.01)	75.00 (5.37)	80.00 (5.72)	85.00 (6.08)	90.00 (6.44)	GPM (ft/sec)
80°	0.75	0.99	1.25	1.55	1.87	2.21	2.59	2.99	3.41	3.86	4.34	4.84	5.37	100% Water
	1.11	1.45	1.83	2.25	2.70	3.18	3.71	4.27	4.86	5.48	6.14	6.83	7.55	50% Water/Glycol
100°	0.71	0.94	1.19	1.47	1.78	2.11	2.47	2.85	3.26	3.69	4.15	4.63	5.13	100% Water
	1.01	1.31	1.66	2.04	2.45	2.90	3.38	3.89	4.43	5.01	5.61	6.25	6.92	50% Water/Glycol
120°	0.68	0.90	1.15	1.42	1.71	2.03	2.38	2.75	3.14	3.56	4.00	4.46	4.95	100% Water
	0.93	1.22	1.54	1.89	2.28	2.70	3.14	3.62	4.13	4.67	5.25	5.83	6.46	50% Water/Glycol
140°	0.66	0.87	1.11	1.37	1.65	1.96	2.30	2.66	3.04	3.44	3.87	4.32	4.79	100% Water
	0.87	1.14	1.45	1.78	2.15	2.54	2.96	3.42	3.90	4.41	4.95	5.51	6.11	50% Water/Glycol
160°	0.64	0.84	1.07	1.33	1.61	1.91	2.23	2.58	2.95	3.35	3.76	4.20	4.66	100% Water
	0.83	1.08	1.37	1.69	2.04	2.42	2.82	3.26	3.72	4.20	4.72	5.26	5.83	50% Water/Glycol
180°	0.62	0.82	1.04	1.29	1.56	1.86	2.18	2.52	2.88	3.27	3.67	4.10	4.55	100% Water
	0.79	1.04	1.32	1.62	1.96	2.32	2.71	3.13	3.58	4.05	4.54	5.07	5.61	50% Water/Glycol

**90 mm Pex Single, Pressure Drop per 100' (3.22" Nom. ID)**

°F	50.00 (2.49)	55.00 (2.74)	60.00 (2.99)	65.00 (3.24)	70.00 (3.49)	75.00 (3.73)	80.00 (3.98)	85.00 (4.23)	90.00 (4.48)	100 (4.98)	110 (5.48)	120 (5.97)	130 (6.47)	140 (6.97)	GPM (ft/sec)
80°	0.78	0.93	1.09	1.25	1.43	1.62	1.82	2.03	2.25	2.71	3.22	3.77	4.36	4.98	100% Water
	1.14	1.35	1.57	1.80	2.05	2.32	2.59	2.88	3.19	3.84	4.54	5.29	6.09	6.94	50% Water/Glycol
100°	0.75	0.89	1.04	1.20	1.37	1.55	1.74	1.94	2.15	2.60	3.08	3.61	4.17	4.77	100% Water
	1.04	1.22	1.43	1.64	1.87	2.11	2.37	2.63	2.91	3.51	4.15	4.85	5.59	6.38	50% Water/Glycol
120°	0.72	0.85	0.99	1.15	1.31	1.49	1.67	1.86	2.07	2.50	2.97	3.48	4.02	4.60	100% Water
	0.96	1.14	1.32	1.53	1.74	1.97	2.20	2.45	2.72	3.27	3.88	4.53	5.23	5.96	50% Water/Glycol
140°	0.69	0.82	0.96	1.11	1.27	1.44	1.62	1.80	2.00	2.42	2.88	3.37	3.90	4.46	100% Water
	0.90	1.07	1.25	1.44	1.64	1.85	2.08	2.32	2.56	3.09	3.67	4.29	4.95	5.65	50% Water/Glycol
160°	0.67	0.80	0.93	1.08	1.23	1.40	1.57	1.75	1.94	2.35	2.80	3.28	3.80	4.35	100% Water
	0.86	1.02	1.19	1.37	1.56	1.77	1.98	2.21	2.44	2.95	3.50	4.09	4.73	5.40	50% Water/Glycol
180°	0.65	0.78	0.91	1.05	1.20	1.36	1.53	1.71	1.90	2.30	2.73	3.20	3.71	4.25	100% Water
	0.82	0.98	1.14	1.31	1.50	1.70	1.90	2.12	2.35	2.84	3.37	3.94	4.55	5.21	50% Water/Glycol

**110 mm Pex Single, Pressure Drop per 100' (3.94" Nom. ID)**

°F	90 (3.00)	100 (3.33)	110 (3.66)	120 (4.00)	130 (4.33)	140 (4.66)	150 (4.99)	175 (5.83)	200 (6.67)	GPM (ft/sec)
80°	0.86	1.03	1.23	1.43	1.66	1.89	2.14	2.83	3.61	100% Water
	1.23	1.47	1.74	2.03	2.34	2.66	3.01	3.95	5.00	50% Water/Glycol
100°	0.82	0.99	1.17	1.37	1.58	1.81	2.05	2.71	3.46	100% Water
	1.12	1.34	1.59	1.86	2.14	2.44	2.76	3.62	4.60	50% Water/Glycol
120°	0.78	0.95	1.13	1.32	1.53	1.74	1.98	2.62	3.34	100% Water
	1.04	1.25	1.48	1.73	2.00	2.28	2.57	3.39	4.31	50% Water/Glycol
140°	0.76	0.92	1.09	1.28	1.48	1.69	1.92	2.54	3.23	100% Water
	0.98	1.18	1.40	1.64	1.89	2.15	2.44	3.21	4.08	50% Water/Glycol
160°	0.74	0.89	1.06	1.24	1.44	1.64	1.86	2.47	3.15	100% Water
	0.93	1.13	1.33	1.56	1.80	2.06	2.33	3.07	3.90	50% Water/Glycol
180°	0.72	0.87	1.03	1.21	1.40	1.60	1.82	2.41	3.08	100% Water
	0.90	1.08	1.28	1.50	1.73	1.98	2.24	2.96	3.77	50% Water/Glycol

Pressure drop through fittings

Equivalent ft. R-flex	
Coupling	1.0
Elbow	5.0
Tee-Run	1.0
Tee-Branch	3.3

**1" Pex Double, Pressure Drop per 50' (0.86" Nom. ID)**

°F	2.50 (1.36)	3.00 (1.64)	3.50 (1.91)	4.00 (2.18)	4.50 (2.46)	5.00 (2.73)	5.50 (3.00)	6.00 (3.28)	6.50 (3.55)	7.00 (3.82)	8.00 (4.37)	9.00 (4.91)	10.00 (5.46)	11.00 (6.01)	12.00 (6.55)	GPM (ft/sec)
80°	1.21	1.66	2.17	2.7	3.3	4.0	4.7	5.5	6.4	7.3	9.2	11.	13.75	16.29	19.02	100% Water
	1.20	2.23	3.36	4.2	5.2	6.2	7.3	8.5	9.7	11.	13.	17.	20.38	24.02	27.92	50% Water/Glycol
100°	1.14	1.56	2.05	2.2	3.1	3.8	4.5	5.2	6.0	6.9	8.7	10.	13.08	15.51	18.11	100% Water
	1.71	2.34	3.04	3.8	4.6	5.5	6.5	7.6	8.7	9.9	12.	15.	18.39	21.71	25.26	50% Water/Glycol
120°	1.08	1.49	1.95	2.4	3.0	3.6	4.3	5.0	5.8	6.6	8.4	10.	12.54	14.88	17.39	100% Water
	1.56	2.13	2.77	3.4	4.2	5.1	6.0	6.9	8.0	9.1	11.	14.	16.99	20.07	23.37	50% Water/Glycol
140°	1.04	1.43	1.87	2.3	2.9	3.5	4.1	4.8	5.6	6.3	8.1	10.	12.10	14.36	16.79	100% Water
	1.45	1.97	2.57	3.2	3.9	4.7	5.6	6.5	7.5	8.5	10.	13.	15.93	18.83	21.95	50% Water/Glycol
160°	1.00	1.38	1.80	2.2	2.8	3.4	4.0	4.7	5.4	6.1	7.8	9.7	11.73	13.93	16.29	100% Water
	1.35	1.85	2.41	3.0	3.7	4.4	5.2	6.1	7.0	8.0	10.	12.	15.09	17.86	20.83	50% Water/Glycol
180°	0.97	1.33	1.75	2.2	2.7	3.3	3.9	4.5	5.2	6.0	7.6	9.4	11.42	13.56	15.87	100% Water
	1.29	1.76	2.30	2.9	3.5	4.2	5.0	5.8	6.7	7.7	9.7	12.	14.48	17.14	20.00	50% Water/Glycol

**32 mm Pex Double, Pressure Drop per 50' (1.15" Nom. ID)**

°F	5.00 (1.96)	5.50 (2.16)	6.00 (2.36)	6.50 (2.55)	7.00 (2.75)	8.00 (3.14)	9.00 (3.54)	10.00 (3.93)	11.00 (4.32)	12.00 (4.71)	13.00 (5.11)	14.00 (5.50)	15.00 (5.89)	16.00 (6.29)	17.00 (6.68)	GPM (ft/sec)
80°	1.85	2.19	2.55	2.9	3.3	4.2	5.2	6.2	7.41	8.6	9.9	11.	12.87	14.44	16.09	100% Water
	2.89	3.39	3.93	4.5	5.1	6.4	7.8	9.3	11.04	12.	14.	16.	18.85	21.08	23.42	50% Water/Glycol
100°	1.75	2.07	2.41	2.7	3.1	4.0	4.9	5.9	7.05	8.2	9.4	10.	12.26	13.76	15.34	100% Water
	2.57	3.02	3.51	4.0	4.4	5.7	7.0	8.4	9.96	11.	13.	15.	17.07	19.11	21.25	50% Water/Glycol
120°	1.67	1.97	2.30	2.6	3.0	3.8	4.7	5.7	6.75	7.8	9.1	10.	11.77	13.22	14.74	100% Water
	2.35	2.77	3.21	3.6	4.1	5.2	6.4	7.7	9.19	10.	12.	14.	15.81	17.71	19.70	50% Water/Glycol
140°	1.60	1.90	2.21	2.5	2.9	3.6	4.5	5.4	6.51	7.6	8.7	10.	11.37	12.77	14.24	100% Water
	2.18	2.58	2.99	3.4	3.9	4.9	6.0	7.2	8.61	10.	11.	13.	14.86	16.65	18.53	50% Water/Glycol
160°	1.55	1.83	2.14	2.4	2.8	3.5	4.4	5.3	6.31	7.3	8.5	9.7	11.03	12.39	13.83	100% Water
	2.06	2.43	2.82	3.2	3.6	4.6	5.7	6.9	8.16	9.5	10.	12.	14.10	15.81	17.61	50% Water/Glycol
180°	1.50	1.78	2.07	2.3	2.7	3.4	4.2	5.1	6.14	7.1	8.3	9.4	10.74	12.07	13.47	100% Water
	1.96	2.31	2.69	3.1	3.5	4.4	5.4	6.6	7.81	9.1	10.	11.	13.53	15.18	16.90	50% Water/Glycol

**40 mm Pex Double, Pressure Drop per 50' (1.43" Nom. ID)**

°F	7.00 (1.78)	8.00 (2.03)	9.00 (2.28)	10.00 (2.54)	11.00 (2.79)	12.00 (3.05)	13.00 (3.30)	14.00 (3.55)	15.00 (3.81)	16.00 (4.06)	17.00 (4.31)	18.00 (4.57)	19.00 (4.82)	20.00 (5.08)	25.00 (6.34)	GPM (ft/sec)
80°	1.18	1.49	1.83	2.2	2.6	3.0	3.5	4.0	4.5	5.0	5.6	6.2	6.89	7.55	11.24	100% Water
	1.83	2.29	2.80	3.3	3.9	4.5	5.2	5.9	6.7	7.5	8.3	9.1	10.09	11.02	16.24	50% Water/Glycol
100°	1.12	1.41	1.74	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.3	5.9	6.56	7.19	10.73	100% Water
	1.63	2.05	2.51	3.0	3.5	4.1	4.7	5.3	6.0	6.7	7.5	8.3	9.14	9.99	14.	50% Water/Glycol
120°	1.06	1.35	1.66	2.0	2.3	2.7	3.1	3.6	4.1	4.6	5.1	5.7	6.30	6.90	10.31	100% Water
	1.49	1.88	2.30	2.7	3.2	3.7	4.3	4.9	5.5	6.2	6.9	7.7	8.46	9.26	13.71	50% Water/Glycol
140°	1.02	1.30	1.60	1.9	2.2	2.6	3.0	3.5	3.9	4.4	4.9	5.5	6.08	6.67	9.97	100% Water
	1.39	1.75	2.15	2.5	3.0	3.5	4.0	4.6	5.2	5.8	6.5	7.2	7.95	8.70	12.91	50% Water/Glycol
160°	0.99	1.25	1.55	1.8	2.2	2.5	2.9	3.4	3.8	4.3	4.8	5.3	5.90	6.47	9.68	100% Water
	1.31	1.65	2.03	2.4	2.8	3.3	3.8	4.4	4.9	5.5	6.2	6.8	7.55	8.27	12.28	50% Water/Glycol
180°	0.96	1.22	1.50	1.8	2.1	2.5	2.9	3.3	3.7	4.2	4.7	5.2	5.74	6.30	9.44	100% Water
	1.25	1.58	1.94	2.3	2.7	3.2	3.7	4.2	4.7	5.3	5.9	6.5	7.24	7.93	11.80	50% Water/Glycol

### 50 mm Pex Double, Pressure Drop per 50' (1.79" Nom. ID)

°F	11.00 (1.78)	12.00 (1.94)	13.00 (2.11)	14.00 (2.27)	15.00 (2.43)	16.00 (2.59)	17.00 (2.75)	18.00 (2.92)	19.00 (3.08)	20.00 (3.24)	25.00 (4.05)	30.00 (4.86)	35.00 (5.67)	40.00 (6.48)	GPM (ft/sec)
80°	0.90	1.04	1.20	1.37	1.55	1.74	1.93	2.14	2.35	2.58	3.84	5.31	7.00	8.89	100% Water
	1.37	1.59	1.82	2.07	2.33	2.60	2.88	3.18	3.49	3.81	5.61	7.70	10.07	12.72	50% Water/Glycol
100°	0.85	0.99	1.14	1.30	1.47	1.65	1.84	2.03	2.24	2.45	3.65	5.07	6.68	8.50	100% Water
	1.23	1.43	1.64	1.86	2.09	2.34	2.60	2.87	3.15	3.45	5.08	6.99	9.17	11.59	50% Water/Glycol
120°	0.81	0.95	1.09	1.25	1.41	1.58	1.76	1.95	2.15	2.35	3.51	4.87	6.42	8.17	100% Water
	1.13	1.31	1.50	1.71	1.93	2.16	2.40	2.65	2.91	3.19	4.71	6.49	8.52	10.79	50% Water/Glycol
140°	0.78	0.91	1.05	1.20	1.36	1.52	1.70	1.88	2.07	2.27	3.39	4.70	6.21	7.91	100% Water
	1.05	1.22	1.41	1.60	1.81	2.02	2.25	2.48	2.73	2.99	4.43	6.11	8.03	10.18	50% Water/Glycol
160°	0.75	0.88	1.02	1.16	1.31	1.47	1.64	1.82	2.01	2.20	3.29	4.57	6.03	7.69	100% Water
	0.99	1.16	1.33	1.51	1.71	1.91	2.13	2.35	2.59	2.83	4.20	5.81	7.64	9.69	50% Water/Glycol
180°	0.73	0.86	0.99	1.13	1.28	1.43	1.60	1.77	1.95	2.14	3.20	4.45	5.88	7.50	100% Water
	0.95	1.10	1.27	1.45	1.63	1.83	2.04	2.25	2.48	2.72	4.03	5.58	7.34	9.32	50% Water/Glycol

### 63 mm Pex Double, Pressure Drop per 50' (2.25" Nom. ID)

°F	15.00 (1.53)	20.00 (2.04)	25.50 (2.55)	30.00 (3.08)	35.00 (3.57)	40.00 (4.08)	45.00 (4.59)	50.00 (5.10)	55.00 (5.61)	60.00 (6.13)	65.00 (6.64)	70.00 (7.15)	GPM (ft/sec)
80°	0.52	0.86	1.27	1.76	2.31	2.94	3.63	4.38	5.20	6.08	7.02	8.02	100% Water
	0.78	1.28	1.88	2.58	3.37	4.25	5.22	6.27	7.41	8.63	9.93	11.32	50% Water/Glycol
100°	0.49	0.81	1.21	1.67	2.20	2.80	3.46	4.18	4.97	5.81	6.71	7.67	100% Water
	0.70	1.15	1.70	2.34	3.06	3.86	4.75	5.72	6.76	7.88	9.08	10.36	50% Water/Glycol
120°	0.47	0.78	1.16	1.61	2.12	2.69	3.33	4.02	4.78	5.59	6.46	7.39	100% Water
	0.65	1.06	1.57	2.16	2.83	3.59	4.41	5.32	6.30	7.35	8.47	9.66	50% Water/Glycol
140°	0.45	0.75	1.12	1.55	2.04	2.60	3.22	3.89	4.62	5.41	6.26	7.16	100% Water
	0.60	1.00	1.47	2.03	2.67	3.38	4.16	5.02	5.94	6.94	8.00	9.13	50% Water/Glycol
160°	0.43	0.73	1.08	1.50	1.98	2.52	3.12	3.78	4.49	5.26	6.09	6.97	100% Water
	0.57	0.94	1.40	1.93	2.53	3.21	3.96	4.78	5.66	6.61	7.63	8.72	50% Water/Glycol
180°	0.42	0.71	1.05	1.46	1.93	2.46	3.05	3.69	4.38	5.14	5.94	6.80	100% Water
	0.54	0.90	1.34	1.85	2.43	3.08	3.80	4.59	5.45	6.37	7.35	8.39	50% Water/Glycol